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TRANSCRIPT OF RECORD.

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SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 1883.

No. ~~803~~. ~~455~~ 177

WILLIAM GARDNER, OLIVER L. GARDNER, AND JANE E. GARDNER, APPELLANTS,

vs.

MARTIN HERZ AND JOHN K. MAYO.

APPEAL FROM THE CIRCUIT COURT OF THE UNITED STATES FOR THE SOUTHERN DISTRICT OF NEW YORK.

FILED DECEMBER 5, 1882.

Circuit Court

SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 1883.

No. 803.

WILLIAM GARDNER, OLIVER L. GARDNER, AND JANE E GARDNER, APPELLANTS,

VS.

MARTIN HERZ AND JOHN K. MAYO.

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INDEX.

	Original.	Print.
Subpœna	1	1
Bill	3	1
Appearance	12	6
Answer	14	7
Replication	21	10
Consent and order of substitution	22	11
PROOFS ON PART OF COMPLAINANTS.		
Testimony of Thomas J. O'Keefe	24	12
Lemuel W. Serrell	27	13
James B. Ryer	31	15
Henry P. DeGraff	39	20
Joel W. Mason	45	23
Martin Fechtman	54	28
John Bowman	64	34
PROOFS IN REBUTTAL ON PART OF COMPLAINANTS.		
Testimony of George Gardner	67	35
David Garrison	89	48
Robert Wood	99	54
Henry T. Pratt	112	61
Adolphus Henkel	126	69
Henry W. Joslin	155	85
Consent as to affidavits of Frank J. Hessler, Horace G. Jacobs, and Ora L. Pitney, with exhibits attached	159	87

	Original.	Print.
Affidavit of Frank J. Hessler	160	88
Frank J. Hessler	169	91
Horace G. Jacobs	170	92
Ora L. Pitney	177	96
Testimony of George Chipman	178	96
Daniel Chaffee	186	101
Charles N. Arnold	196	106
Samuel Keefer	199	107
Morris K. Sutliff	203	110
Oliver L. Gardner	207	112
Consent as to affidavits of Sevellon A. Brown, Boone Chambers, William T. Kent, George K. Finckel, William J. Warren, John W. Hogg, J. R. Van Warmer, George M. Lockwood, C. W. Holcomb, Ezra L. Stevens, Malcolm Seaton, Raphael P. Thian, and Samuel Mulliken	214	116
Affidavit of Sevellon A. Brown	214	116
Boone Chambers	215	116
William T. Kent	216	117
George K. Finckel	216	117
William J. Warren	217	117
John W. Hogg	218	118
J. R. Van Warmer	219	119
George M. Lockwood	219	119
C. W. Holcomb	220	119
Ezra L. Stevens	221	120
Malcolm Seaton	221	120
Raphael P. Thian	222	120
Samuel Mulliken	223	121
Testimony of Samuel P. Kittle	224	121
COMPLAINANTS' EXHIBITS.		
Exhibit P. J. F. (Circular of Treasury Department, calling for proposals to furnish supplies.)	162	89
A. (Specifications of furniture, Treasury Department.)	171	93
B. (Specifications of furniture, Treasury Department.)	173	93
C. (Specifications of furniture, Treasury Department.)	175	95
Original Application, Gardner File Wrapper, &c	270	147
Application for Gardner patent No. 127044, File Wrapper, &c	280	151
Reissue appeal; appeal of Gardner to examiners-in-chief	287	154
Reissue decision; decision of examiners-in-chief	290	155
Seymour—Wood patent	296	158
Centennial report. (Report of United States Centennial Commission.)	299	159
Statement of Gardner sales	301	160
Defendants' bill	303	161
Wood seat (diagram)	303½	162
Seymour & Wood patent	304	162
Gardner reissue patent	309	164
PROOFS ON PART OF DEFENDANTS.		
Defendants' Exhibit Consent to Appoint Special Examiner	313	167
Testimony of George Gardner	315	168
Testimony of J. E. Hindon Hyde	329	176
Defendants' Exhibit Stipulation. (J. T. L., special examiner, May 7, 1881.)	346	185

	Original.	Print
Defendants' Exhibit Statement of Facts. (J. T. L., special examiner, May 7, 1881.)	347	185
Cross-examination of J. E. Hindon Hyde	352	188
Testimony of Oliver L. Gardner	361	194
Defendants' Exhibit Opinion. (J. T. L., special examiner, May 5, 1881.)	364	195
Gardner Original Patent. (J. T. L., special examiner, April 30, 1881.)	372	199
Gardner First Reissue. (J. T. L., special examiner, April 30, 1881.)	376	201
Gardner Second Reissue. (J. T. L., special examiner, April 30, 1881.)	381	204
Mayo Original Patent. (J. T. L., special examiner, May 5, 1881.)	386	207
Mayo Reissue Patent. (J. T. L., special examiner, May 5, 1881.)	391	209
Belter Patent of 1856	393	212
Belter Patent	401	217
Bellows Patent	410	220
Tice Patent	414	222
Bramhill Patent	420	224
Cochran Patent	424	226
Farmer Patent	428	228
Pratt Patent	432	230
Gardner Patent No. 127044	437	232
Gardner Reissue No. 7202	441	234
Botturi Patent	446	236
Hearing of cause	462	240
Decision	464	241
Decree dismissing bill	474	243
Stipulation as to record	477	244
Stipulation as to exhibits (models)	478	244
Petition of appeal	480	244
Bond on appeal	486	246
Citation	490	247
Clerk's certificate	492	248

1 The President of the United States of America to Martin Herz and John K. Mayo greeting:

You are hereby commanded that you and each of you personally appear before the judges of the circuit court of the United States of America for the southern district of New York, in the second circuit court, in equity, on the first Monday of August, A. D. 1880, wherever the said court shall then be, to answer a bill of complaint exhibited against you in the said court by William Gardner, Oliver L. Gardner, and Jane E. Gardner, and do further and receive what the said court shall have considered in that behalf. And this you are not to omit under the penalty on you and each of you of two hundred and fifty dollars.

Witness, honorable Morrison R. Waite, Chief Justice of the Supreme Court of the United States, at the city of New York, on the 21st day of June, in the year one thousand eight hundred and eighty, and of the Independence of the United States of America the hundred and fourth.

[L. S.] JOHN I. DAVENPORT, *Clerk.*

GIFFORD & GIFFORD,
Compl't's Sol'rs.

The defendants are required to enter appearance in the above cause in the clerk's office of this court on or before the first Monday of August, 1880, or the bill will be taken pro confesso against them.

J. I. D., *Clerk.*

2 (Endorsed:)

I hereby certify that on the 12th day of July, 1880, at the city of New York, in my district, I personally served upon the within-named Martin Herz, by exhibiting to him the within original, and at the same time leaving with him a copy thereof.

John K. Mayo not found.

Dated August 2, 1880.

LOUIS F. PAYN,
U. S. Marshal, S. D. N. Y.

U. S. circuit court. Filed Aug. 4, 1880. John I. Davenport, clerk.

3 In the circuit court of the United States. In equity.

To the honorable the judges of the circuit court of the United States for the southern district of New York:

William Gardner, of the city of New York, and Oliver L. Gardner and Jane E. Gardner, of the city of Brooklyn, State of New York, bring this their bill of complaint against Martin Herz and John K. Mayo, copartners, doing business in the city of New York under the name and style of Herz & Company.

And thereupon your orators complain and say:

That they are informed and believe that George Gardner was and is the original and first inventor of new and useful improvement in chair seats, fully described in the letters patent hereinafter mentioned, and which had not been known or used before his said invention, and which had not been for more than two years prior to his application for a patent, as hereinafter mentioned, in public use or on sale.

And your orators further show unto your honors that said George Gardner, being desirous of obtaining an exclusive property in said invention, duly made application in writing to the Commissioner of Patents of the United States expressing such desire, and praying that letters patent of the United States might be granted therefor, and complied with all the statutes of the United States in such case made and provided.

And your orators further show unto your honors that on or about the date of such application, and prior to the granting of the letters patent hereinafter mentioned, the said George Gardner, by an instru-
4 ment in writing bearing date the 26th day of April, 1872, sold, assigned, transferred, and set over unto your orators, William Gardner and Oliver L. Gardner, two undivided thirds of all his right, title, and interest in and to his said invention, and the letters patent therefor when granted, which said assignment was duly recorded in the Patent Office of the United States on the 2d day of May, 1872, as by said assignment and the certificate of such recording thereto affixed, or duly authenticated copies thereof, ready in court to be produced, will fully appear.

And your orators further show unto your honors that the said George Gardner and your orators, William Gardner and Oliver L. Gardner, did, on the 21st day of May, 1872, upon due application therefor, obtain letters patent of the United States for said invention, in due form of law, under the seal of the Patent Office of the United States, signed by the Secretary of the Interior, and countersigned by the Commissioner of Patents of the United States, bearing date the day and year last aforesaid, and numbered 127045, whereby there was granted and secured to them, their heirs, administrators, or assigns, for the term of seventeen years from and after the date of said letters patent, the full and exclusive right and liberty of making, constructing, using, and vending to others to be used, the said invention and improvements, as set forth in said letters patent, which are now remaining on record in the Patent Office.

And your orators further show unto your honors that on or about the 28th day of June, 1872, said George Gardner, by an instrument in writing bearing that date, sold, assigned, transferred, and set over unto Joanna Gardner and your orator Oliver L. Gardner all his right, title, and interest in and to said letters patent, which instrument was duly recorded in the Patent Office of the United States, as by said assignment and
5 the certificate of such recording thereto affixed, or duly authenticated copies thereof, in court to be produced, will fully appear.

And your orators further show unto your honors that on or about the 24th day of October, 1873, your orator Oliver L. Gardner, by an instrument in writing bearing that date, sold, assigned, transferred, and set over unto George Gardner all his right, title, and interest in and to said letters patent, which said instrument was duly recorded in the Patent Office, as by said assignment and the certificate of such recording thereto affixed, or duly authenticated copies thereof, ready in court to be produced will fully appear.

And your orators further show unto your honors that on or about the 13th day of November, 1874, the said George Gardner, by an instrument in writing bearing that date, sold, assigned, transferred, and set over unto your oratrix, Jane E. Gardner, one-half of all his right, title, and interest in and to said letters patent; which said instrument was duly recorded in

the Patent Office, as by said assignment and the certificate of such recording thereto affixed, or duly authenticated copies thereof, ready in court to be produced will fully appear.

And your orators further show unto your honors that the said George Gardner, on or about the 6th day of March, 1876, by an instrument in writing bearing that date, sold, assigned, transferred, and set over unto your oratrix, Jane E. Gardner, an undivided one-twelfth part of all his right, title, and interest in and to said letters patent; which said assignment was duly recorded in the Patent Office, as by said assignment and the certificate of such recording thereto affixed, or duly authenticated copies thereof, ready in court to be produced will fully appear.

6 And your orators further show unto your honors that on or about the 6th day of March, 1876, the said Joanna Gardner, by an instrument in writing bearing that date, sold, assigned, transferred, and set over unto George Gardner all her right, title, and interest in and to said letters patent; which said instrument was duly recorded in the Patent Office, as by said assignment and the certificate of such recording thereto affixed, or duly authenticated copies thereof, ready in court to be produced will fully appear.

And your orators further show unto your honors that said George Gardner, William Gardner, and Jane E. Gardner, having for good and lawful cause surrendered said letters patent to the Commissioner of Patents, and having made due application therefor, and having in all things complied with the acts of Congress in such case made and provided, did, on the 4th day of July, 1876, obtain new letters patent, being for the same invention, for the residue of said term, and which were marked No. 7203, and were issued in due form of law, under the seal of the Patent Office of the United States, signed by the Secretary of the Interior, and countersigned by the Commissioner of Patents, and bearing date the day and year last aforesaid, which reissue letters patent are now remaining on record in the Patent Office.

And your orators further show unto your honors that the said last-mentioned George Gardner, on or about the 17th day of January, 1877, by an instrument in writing bearing that date, sold, assigned, transferred and set over unto your orator Oliver L. Gardner all his right, title, and interest in and said to reissue letters patent; which said instrument was duly recorded in the Patent Office, as by said assignment and the certificate of such recording thereto affixed, or duly authenticated copies thereof, ready in court to be produced will fully appear.

7 And your orators further show unto your honors that they, having for good and lawful cause surrendered said letters patent to the Commissioner of Patents, and having made due application therefor, and having in all things complied with the acts of Congress in such case made and provided, did, on the 24th day of February, 1880, obtain new letters patent, being for the same invention, for the residue of said term, and which were marked reissue No. 9094, and were issued in due form of law, under the seal of the Patent Office of the United States, signed by the Secretary of the Interior, and countersigned by the Commissioner of Patents, and bearing date the day and year last aforesaid, as by said letters patent, or a duly authenticated copy thereof, ready in court to be produced will fully appear.

And your orators further show unto your honors that by virtue of the premises they became and now are the sole and exclusive owners of said reissue letters patent No. 9094 and invention, and of all the rights and privileges granted and secured, or intended to be granted and secured, thereby. And that since they became the owners thereof as aforesaid they have invested and expended large sums of money, and have been to great trouble in and about said invention, and for the purpose of carrying on the business and manufacturing and selling chair seats made according to said invention, and making the same profitable to themselves and useful to the public; and that said invention has been and is of great benefit and advantage; and that chair seats have been made according to said invention and sold by your orators to great advantage to the public; and that the public have generally acknowledged and acquiesced in the aforesaid rights of your orators; and your orators believe that they will realize and receive large gains and profits therefrom if infringements by said defendants and their confederates shall be prevented.

8 Yet the said defendants, well knowing the premises, and the rights secured to your orators aforesaid, but contriving to injure your orators and to deprive them of the benefits and advantages which might and otherwise would accrue unto them from said invention, after the issuing of said reissue letters patent, No. 9094, as aforesaid, and before the commencement of this suit, did, as your orators are informed and believe, at the city of New York, in said district, without the license or allowance and against the will of your orators, and in violation of their rights, and in infringement of the aforesaid reissue letters patent No. 9094, unlawfully and wrongfully, and in defiance of the rights of your orators, make and vend to others, to be sold and used, chair seats made according to and employing and containing said invention, and that they still continue so to do; and that they are threatening to make and sell the aforesaid chair seats in large quantities, and to supply the market therewith, all in defiance of the rights acquired by and secured to your orators as aforesaid, and to their great and irreparable loss and injury, and by which they have been and still are being deprived of great gains and profits which they might and otherwise would have obtained, but which have been received and enjoyed, and are being received and enjoyed, by the said defendants by and through their aforesaid unlawful acts and doings.

And your orators further show unto your honors, on information and belief, that said defendants have made and sold large quantities of chair seats made according to and employing and containing said invention, and that they have made and realized large profits and advantages therefrom; but to what extent and how much exactly your orators do not know, and pray a discovery thereof. And your orators say, that the use of said invention by said defendants, and their preparation for and avowed

9 determination to continue the same, and their other aforesaid unlawful acts, in disregard and defiance of the rights of your orators, have the effect to encourage and induce others to venture to infringe said patent in disregard of your orators' rights.

And your orators further show unto your honors that they have caused notice to be given to said defendants of said infringements, and of the rights of your orators in the premises, and requested them to desist and

refrain therefrom; but they have disregarded said notice, and refused to desist from said infringements, and still continue to make and sell said chair seats.

And your orators pray that said defendants, Martin Herz and John K. Mayo, and their and each of their servants, agents, attorneys, and workmen, and each and every of them, may be perpetually restrained and enjoined by the order and injunction of this honorable court from directly or indirectly making, constructing, using, vending, delivering, working, or putting into practice, operation, or use, or in anywise counterfeiting or imitating the said invention, or any part thereof, or any chair seats made in accordance therewith, or like or similar to those which they have heretofore made or sold; and that the said defendants may be decreed to pay the costs of this suit; and that your orators may have such further relief, or such other relief, as to this honorable court shall seem meet, and as shall be agreeable to equity.

May it please your honors to grant unto your orators the writ of injunction issuing out of and under the seal of this honorable court, commanding, enjoining, and restraining said defendants, Martin Herz and John K. Mayo, and their and each of their servants, agents, attorneys, and workmen, and each and every of them, during the pendency of this suit, as is hereinbefore in that behalf prayed in regard to said perpetual injunction.

And forasmuch as your orators can have no adequate relief except in this court; to the end, therefore, that the said defendants may, if they can show why your orators should not have the relief hereby prayed, and may upon their and each of their corporal oaths, and according to their and each of their best and utmost knowledge, remembrance, information, and belief, full, true, direct, and perfect answers make to the premises, and to all the several matters hereinbefore stated and charged, as fully and particularly as if severally and separately interrogated as to each and every of said matters, and may be compelled to account for and pay to your orators the profits by them acquired, and the damages suffered by your orators from the aforesaid unlawful acts; and that the court may assess said profits and damages, and may increase the damages to a sum not exceeding three times the amount thereof.

May it please your honors to grant unto your orators the writ of subpœna issued out of and under the seal of this honorable court, directed to the said defendants, Martin Herz and John K. Mayo, commanding them by a certain day, and under a certain penalty, to be and appear in this honorable court, then and there to answer the premises, and to stand to and abide such order and decree as may be made against them.

And your orators will ever pray, etc.

WILLIAM GARDNER,
OLIVER L. GARDNER.
JANE E. GARDNER.

GIFFORD & GIFFORD,
Compl'ts' Sol'rs.
GEORGE GIFFORD,
Of Counsel.

11 UNITED STATES OF AMERICA,
Southern District of New York,
City and County of New York, ss:

On this 17th day of June, 1880, before me personally appeared Oliver L. Gardner and Jane E. Gardner, the above-named complainants, who, being by me severally duly sworn, depose and say that they have read the foregoing bill of complaint subscribed by them, and know the contents thereof, and that the same is true of their own knowledge, except as to the matters therein stated on information and belief, and as to those matters they believe it to be true.

[SEAL.] CHARLES M. EARL,
Notary Public, N. Y. County.

UNITED STATES OF AMERICA,
Southern District of New York,
City and County of New York, ss:

On this 17th day of June, 1880, before me personally appeared William Gardner, one of the above-named complainants, who, being by me duly sworn, deposes and says that he has read the foregoing bill of complaint subscribed by him, and knows the contents thereof, and that the same is true of his own knowledge, except as to the matters therein stated on information and belief, and as to those matters he believes it to be true.

[SEAL.] ADOLPH KIENDL,
Notary Public, Kings County.

Cert. filed New York County.

(Endorsed:) U. S. circuit court, southern district of New York. In equity. William Gardner and others vs. Martin Herz & John K. Mayo. Bill of complaint. Gifford & Gifford, compl'ts' sol'rs, 32 Park Place, New York City. U. S. circuit court. Filed June 21, 1880. John I. Davenport, clerk.

12 United States circuit court, southern district of New York.

WILLIAM GARDNER & OTHERS
ag'st.
MARTIN HERZ & JOHN K. MAYO.

Please to take notice that we are retained by and hereby appear for the defendants in the above-entitled suit, and hereby request you to enter our appearance in your office as solicitors for the defendants in this suit.

Yours, &c.,

FROST & COE,
Solicitors for Defendants, 233 *Broadway, New York.*

To JOHN I. DAVENPORT,
Clerk of the United States Circuit Court,
Southern District of New York.

13 (Endorsed:) United States circuit court, southern district of New York. William Gardner & others ag'st Martin Herz & John K. Mayo. Notice of appearance. U. S. circuit court. Filed Jul. 31, 1880. John I. Davenport, clerk. Frost & Coe, def'ts' solicitors, 233 Broadway, N. Y.

14 U. S. circuit court, southern district of New York.

WILLIAM GARDNER, OLIVER L. GARDNER, Jane E. Gardner, complainants, *against* MARTIN HERZ AND JOHN K. MAYO, DEFENDANTS. } In equity.

The joint and several answer of Martin Herz and John K. Mayo to the bill of complaint of the above-named complainants.

These defendants, jointly and severally, now and at all times hereafter, saving and reserving to themselves, and to each of them, all and all manner of benefit and advantage of exception that can or may be had or taken to the manifold errors, uncertainties, and insufficiencies of the said complainants' said bill of complaint for answer to said bill, or to so much and such parts thereof as they are advised it is material or necessary for them to make answer unto, answering say:

I. They are informed and believe, and therefore admit, that on the 21st day of May, 1872, letters patent of the United States, numbered 127045, were issued to George Gardner, William Gardner, and Oliver Gardner for an alleged improvement in chair seats, and they admit that on the 4th day of July, 1876, letters patent purporting to be a reissue of said let-
15 ters patent No. 127045, and numbered as reissued letters patent No. 7203 were issued to George Gardner, William Gardner, and Jane E. Gardner, and they admit that on the 24th day of February, 1880, letters patent, purporting to be a reissue of original letters patent No. 127045, and said reissued letters patent No. 7203, and numbered as reissued letters patent No. 9094, were issued to the complainants herein, but these defendants deny that said George Gardner was the inventor or the first or original discoverer of the alleged invention described in said original letters patent No. 127045; they deny that the same had not been known and used by others prior to his alleged invention thereof as stated in said bill.

They deny that said original letters patent No. 127045 and said reissued letters patent No. 7203 were surrendered for good and lawful cause, or that due application was made for said reissue of said letters patent, and that in applying for said reissue the requirements and conditions of the acts of Congress in such case made and provided were in all things complied with, and deny that said reissues Nos. 7203 and 9094 were for the same alleged inventions as the said surrendered letters patent No. 127045 and reissue No. 7203; and they deny that said George Gardner was the inventor or the first and original inventor and discoverer of the alleged inventions described and claimed in said reissued patents Nos. 7203 and 9094.

They deny that said alleged invention was not at the time of said Gardner's application for said original letters patent No. 127045 in public use or on sale with his consent and allowance, and they deny that said reissued letters patent No. 9094 secured to the complainants the exclusive right to make, use, and vend to others to be used, the said alleged invention.

II. And these defendants, further answering, say that they have no knowledge or information, save from the bill of complaint herein as to the various assignments of said original letters patent No.

16 127045 and said reissued letters patent No. 7203 as set forth in said bill, and therefore deny the same.

III. And these defendants further deny that the said alleged invention patented as aforesaid is very valuable and useful to the public, or that the public have generally acquiesced in the complainants' alleged exclusive right to the same, or that the complainants would, but for the wrongful acts of the defendants and others alleged to be acting in concert with them, have made large gains and profits from the manufacture, use, and sale of the said alleged invention, or that said complainants have been or are now hindered from making large gains and profits by reason of any wrongful acts of these defendants.

IV. And these defendants, further answering, deny that they have infringed upon said letters patent No. 9094, or violated any rights of these complainants in the premises, but allege that they are making chair seats under and in accordance with and by virture of reissued letters patent No. 3089, issued to John K. Mayo and others, August 18th, 1868, and of which said letters patent said John K. Mayo, one of these defendants, is now the owner.

V. And these defendants, further answering, and not waiving, but still insisting upon all and singular the matters hereinbefore set forth, further say, upon information, advice, and belief:

That said George Gardner was not the inventor, or the true first and original inventor and discoverer of the thing or things patented in said original letters patent No. 127045, and in said reissued letters patent Nos. 7203 and 9094, nor of any material or substantial part thereof described and claimed in said letters patent, or either of them, as new, but that prior to the supposed invention thereof by the said George Gardner the said thing or things so patented and described and claimed as

17 new were patented, described, and represented in the following letters patent of the United States, as follows, viz:

No. 5536, Charles Goodyear, 1848.
No. 11725, Moses E. Halsey, September 26, 1854.
No. 16800, Edwin Kilbrun, March 10th, 1857.
No. 20376, Austin S. Smith, May 25th, 1858.
No. 19405, John H. Belter, February 23d, 1858.
No. 26551, Dubois D. Parmelee, December 20th, 1859.
No. 28309, Philander Shaw, May 15th, 1860.
No. 23225, Zebulon B. Bellows, March 15th, 1859.
No. 39220, Samuel L. Fitts, July 14th, 1863.
No. 48272, John Habermehl, June 20th, 1865.
No. 51132, William Bramhill, November 28th, 1865.
No. 51735, John K. Mayo, December 26th, 1865.
No. 55658, George E. Horand, June 19th, 1866.
No. 56554, John Habermehl, July 24th, 1866.
No. 58682, Charles C. Scmitt, October 9th, 1866.
No. 67485, Alanson Bingham, August 6th, 1867.
No. 69435, G. H. Hoagland, October 1st, 1867.
Reissue No. 3089, John K. Mayo, August 18th, 1868.
No. 84118, D. B. Hedden, November 17th, 1868.
No. 54863, J. W. Cochran, May 22d, 1866.
No. 85363, George Buchel, December 29th, 1868.

No. 82081, E. L. Buckingham, September 13th, 1868.
No. 73603, Samuel B. Henry, January 21st, 1868.
No. 95491, Allen Lapham, October 1st, 1869.
Reissue 2016, Isaac B. Tice, June 27th, 1865.

Also patented, or described, or represented in other letters patent, the numbers and dates of which and the names of the persons to whom granted are not now known to these defendants, but which they pray leave to add hereafter, by way of amendment to this answer, if it shall become necessary for them so to do.

18 Wherefore, these defendants aver that the original letters patent and reissued letters patent Nos. 7203 and 9094 are null and void.

VI. And these defendants, further answering on information and belief, allege that the said letters patent No. 9094 are not for the same alleged invention as the said original letters patent No. 127045, and said reissued letters patent No. 7203, but that new matter not contained in or suggested by or described in said original letters patent No. 127045 and said reissued letters patent No. 7203 has been introduced and interpolated in said reissued letters patent No. 9094, materially changing the scope of the alleged invention described and claimed in said original letters patent No. 127045 and said reissued letters patent No. 7203, and that therefore said reissued letters patent No. 9094 are null and void.

And further, that said reissued letters patent No. 9094 do not describe, specify, or claim any subject matter; that is, in view of the state of the art to which said alleged invention or improvement appertains at the time of the supposed invention of said alleged improvement, patentable or lawfully the subject of letters patent of the United States, and that therefore said reissued letters patent No. 9094 were and are null and void.

VII. And these defendants, further answering, say that in the month of December, 1878, these complainants brought suit against these defendants in the United States circuit court for the southern district of New York for alleged infringement of said reissued letters patent No. 7203, and at the same time made a motion for preliminary injunction against these defendants in said suit.

That these defendants appeared in said suit, filed their answer in said suit, and appeared and interposed defenses to the granting of said preliminary injunction.

That said motion came to a hearing before his honor Judge Blatchford,
19 who, in a decision filed on or about May 9th, 1879, denied said motion for injunction, and also decided not only that said letters patent No. 7203 were invalid, but also that the alleged invention described and claimed in said letters patent No. 127045, and in the first five claims of said reissued letters patent No. 7203 was not patentable, and therefore complainants surrendered said reissued letters patent No. 7203, and obtained from the Patent Office the reissued letters patent on which this suit is brought, being for the subject-matter claimed in the sixth claim of said reissued letters patent No. 7203, and the validity or merits of which was not passed upon by Judge Blatchford in his decision of May 9th, 1879, as will more fully and at large appear by a copy of said decision here in court ready to be produced.

And these defendants further answering, deny each and every other allegation in said bill of complaint contained not hereinbefore specifically admitted or denied.

And these defendants submit to this honorable court that these complainants have no right to any other or further answer to their bill of complaint, or any part thereof, than is hereinbefore contained, and no right to any injunction, decree, or other relief prayed for in said bill.

Without this that there is any other matter or thing in said complainants' said bill of complaint contained material or necessary to be answered by these defendants and not herein and hereby well and sufficiently answered, confessed, traversed, and avoided, true to the knowledge or in the belief of these defendants; all which matters and things these defendants are ready and willing to aver, maintain, and prove as this honorable court shall direct, and humbly pray hence to be dismissed with their reasonable costs and charges in this behalf most wrongfully sustained.

MARTIN HERZ.

FROST & COE,
Solicitors for Defendants, 233 Broadway, New York.

20 SOUTHERN DISTRICT OF NEW YORK,
City and County of New York, ss:

Martin Herz, one of the above-named defendants, being duly sworn, says that he is one of the firm of Herz & Co.; that said firm is composed of the above-named defendants, Martin Herz and John K. Mayo; that he has read the foregoing answer by him subscribed and knows the contents thereof, and that the same is true of his own knowledge except as to the matters therein stated to be alleged on information and belief, and as to those matters he believes it to be true.

MARTIN HERZ.

Subscribed and sworn to before me this 10th day of September, 1880.
R. G. VAN BUSKERK,
Notary Public, City of New York.

(Endorsed:) United States circuit court, southern district of New York. George Gardner et al. against Martin Herz et al. Frost & Coe, defendants' solicitors, 233 B'way, N. Y. U. S. circuit court. Filed Sept. 11, 1880. John I. Davenport, clerk.

21 *Replication.*

U. S. circuit court, southern district of New York.

WILLIAM GARDNER AND OTHERS
vs.
MARTIN HERZ AND JOHN K. MAYO. } In equity.

The replication of William Gardner et als., complainants, to the answer of Martin Herz and John K. Mayo, defendants.

These repliants, saving and reserving to themselves now, and at all times hereafter, all and all manner of benefit and advantage of exception which may be had or taken to the manifold insufficiencies of the said answer for replication thereunto, say that they will aver, maintain, and prove their bill of complaint to be true, certain, and sufficient in the law to be an-

swered unto; and that the said answer of the said defendant is uncertain, untrue, and insufficient to be replied unto by these repliants without this, that any other matter or thing whatsoever in the said answer contained, material or effectual in the law to be replied unto, and not herein and hereby well and sufficiently replied unto, confessed, and avoided, traversed or denied, is true; all which matters and things these repliants are and will be ready to aver, maintain, and prove, as this honorable court shall direct, and humbly pray as in and by their said bill they have already prayed.

GIFFORD & GIFFORD,
Sol'rs and of Counsel for Complainants.

(Endorsed:) U. S. circuit court, S. dist. of N. Y. In equity. William Gardner & others vs. Martin Herz & al. Replication. Gifford & Gifford, solr's & of counsel for complainant. U. S. circuit court. Filed Sept. 20, 1880. John 1. Davenport, clerk.

22 U. S. circuit court, southern district of New York.

GEORGE GARDNER ET AL.
vs.
MARTIN HERZ ET AL. } In equity.

On reading and filing the annexed consent, it is ordered that Messrs. Foster, Wentworth & Foster be substituted as solicitors for the defendant in the above-entitled action in the place, and stead of Messrs. Frost & Coe.

(S'g'd) SAM'L BLATCHFORD.

Dated NEW YORK, *January 27th*, 1881.

23 U. S. circuit court, southern district of New York.

GEORGE GARDNER ET AL.
vs.
MARTIN HERZ ET AL. } In equity.

We hereby consent that Messrs. Foster, Wentworth & Foster be substituted in our place and stead as solicitors for the defendants in the above-entitled suit, and that an order to that effect be entered herein.

Dated New York, December 16th, 1880.

FROST & COE,
Defendants' Solicitors.
MARTIN HERZ.

(Endorsed:) U. S. circuit court. George Gardner et al. vs. Martin Herz et al. Consent & order of substitution.

24 U. S. circuit court, southern district of New York.

WILLIAM GARDNER ET AL.
vs.
MARTIN HERZ ET AL. } In equity.

Proofs for final hearing taken on the part of the complainants under and pursuant to the 67th rule in equity, as amended, of the Supreme Court of the United States, before James Kearney, notary public and special examiner, by consent.

NEW YORK, *October 25th*, 1880.—11 a. m.

Parties met pursuant to notice.

Present: Livingston Gifford, esq., of counsel for complainants, and Louis W. Frost, esq., counsel for defendants.

THOMAS J. O'KEEFE, a witness of lawful age, produced on the part of the complainants, having been by me first duly cautioned and sworn to testify the truth, the whole truth, and nothing but the truth, in the
25 matter of controversy herein, and being examined by Mr. GIFFORD, counsel for complainants, deposes and says:

Q. 1. What is your name, age, residence, and occupation?

A. Thomas J. O'Keefe; age, 22; residence, Fordham, New York; occupation, porter.

Q. 2. Please state, if you know, what is the business of the firm of Herz & Co., and where is their place of business.

A. Chair manufacturers and manufacturers of chair seats, and sellers of the same.

Q. 3. Have you ever purchased any chair seats from the firm of Herz & Co.; and, if so, when and where?

A. Yes, sir; on Saturday, June 19th, 1880, at their place of business in Twenty-second street, between 1st and 2d avenue, in this city.

Q. 4. If you have it, please produce one of the chair seats purchased as stated above.

A. I have one and I produce it.

(Complainants' counsel offers the chair seat above referred to in evidence, and it is marked "Complainants' Exhibit Defendants' Chair Seat, J. K., Special Examiner.")

Q. 5. If you have the bill for the chair seats above referred to please produce it.

A. I have it and I produce it.

(Complainants' counsel offers the bill above referred to in evidence, and it is marked "Complainants' Exhibit Defendants' Bill, J. K., Special Examiner.")

Q. 6. Please state whether you saw other chair seats like those you bought on sale at the store of Herz & Co. at the time you made the above purchase; and, if so, what quantity.

A. I saw a large quantity; several hundred.

26 Cross-examined by LOUIS W. FROST, Esq., counsel for defendants:

X Q. 7. You have stated in your direct examination that you are a porter by occupation; who are you employed by now, and who were you employed by in June, 1880?

A. I am now employed by Gardner & Co., and was so employed at the time I made the purchase referred to in my direct examination.

X Q. 8. How many chair seats did you purchase at the time referred to?

A. Six.

X Q. 9. Are you positive that the chair seat offered in evidence is one of the six you purchased at the time referred; and, if positive, why so?

A. I am; from a mark that I made on the back of the seat in evidence.

X Q. 10. At the time that you purcashed these goods did you give your name to the salesman from whom you made the purchase, or were you asked your name?

A. Yes, sir; he asked my name, and I told him I was in the furniture business; I gave my name to the salesman.

THOMAS O'KEEFE.

Subscribed and sworn to before me this 25th day of October, A. D. 1880.

JAMES KEARNEY,
Special Examiner.

27 LEMUEL W. SERRELL, a witness of lawful age, produced on the part of the complainants, having been by me first duly cautioned and sworn to testify the truth, the whole truth, and nothing but the truth in the matter of controversy herein, and being examined by Mr. L. GIFFORD, counsel for complainants, deposes and says:

Q. 1. What is your name, age, residence, and occupation?

A. Name, Lemuel W. Serrell; I am 51 years of age and a solicitor of patents; residing in Plainfield, New Jersey, and doing business at No. 140 Nassau st., New York City.

Q. 2. Please state briefly what experience you have had, if any, in the examination and comparison of apparatus and inventions and patents therefor, and in giving testimony as an expert before the courts.

A. I have been in the patent-agency business for over 33 years; I have prepared a very large number of applications for patents, and have frequently been called as an expert at different times for more than twenty-five years in cases arising, and in the United States court; my opportunities for becoming familiar with the state of the art, relative to numerous inventions, have been very extensive.

(Complainants' counsel offers in evidence certified copy of reissue letters patent, granted Oliver L. Gardner, William Gardner, and Jane E. Gardner, dated February 24th, 1880, numbered 9094, for an improvement in chair seats; it is marked "Complainants' Exhibit Gardner Reissue, J. K., Special Examiner."

Q. 3. Please examine certified copy of reissue letter patent granted to Oliver Gardner and others, dated February 24th, 1880, numbered 9094, marked "Complainants' Exhibit Gardner Reissue," and say whether
28 you understand the same; and, if so, what you understand to be the invention described therein and specified in the claims thereof.

A. I have examined the said reissue letters patent, and I do understand the same.

The specification of the said patent sets forth distinctly that before the invention of George Gardner layers of wood in the form of veneers cross-

ing each other and glued together had been used for various purposes, and even for furniture. It also sets forth that chair seats had been formed by pressure between dies. It also sets forth that material, such as sheet metal and hard rubber, had been used for chair seats, and that such material had, in some instances, been perforated. The said letters patent points out different instances where these things had been done, so as to show the state of the art before the invention of the said Gardner. The said specification goes on to define the invention of the said Gardner to relate to a chair seat as a new article, possessing great strength and durability, the same being formed of layers or veneers of wood glued together, the direction of the grain in one layer crossing that of another layer.

The seat furthermore is to be concave or dishing, so as to be better adapted to the shape of the person. Said seat to be adapted to a chair frame; the upper surface of the seat is to be concave and the lower surface convex. Any chair seat having these peculiarities corresponds, in my judgment, to the first claim of the said reissue letters patent.

The second claim of the said reissue letters patent applies to a chair seat having the aforesaid peculiarities; that is to say, the seat is to be made of lamina of wood glued together, with the grain in one layer crossing those of the next. The upper surface of the seat is to be concave and the lower surface convex, and as an additional feature of this article perforations are to be made through the seat.

29 Q. 4. Please state whether you are familiar with the use of such a chair seat as is described in said Gardner reissue; and, if so, what you understand to be some of its advantages.

A. I am familiar with the said seat; I use it myself, and I have seen it in use very extensively in public and private. It is used to a large extent in railway carriages and depots, also in steamboats and in public buildings such as the Patent Office.

The advantages of this seat are its great strength and durability; at the same time the seat is very light and cheap. The seat can be easily trimmed off at the edges to correspond in size to the chair frame upon which it to be fastened.

This seat is agreeable to sit on because there is a slight yield to the same, the wood is not a conductor of heat, and hence it is not disagreeable to the person sitting upon the same, whereas the metal perforated seats made use of before the invention of Gardner felt cold to the person, and they were liable to catch in the clothing and injure the same.

Furthermore, these metal seats were cut out by dies to a standard pattern, which could not be varied without considerable expense. The said Gardner seat, being of wood, can be perforated with great facility, and the perforations produce different designs, hence a great variety of seats can be produced, and the appearance is handsome. These perforations incidentally afford a ventilation to the seat. I consider these Gardner seats as comfortable as cane seats, and it is well known that these cane seats are not durable, because the cane breaks and separates, particularly if the chair is stood upon, whereas in the Gardner seat there is no risk of injury to the same even when put to rough uses, such as standing on the chair.

I may also remark that I have used chairs with perforated sheet-metal seats, and I know the sheet metal is liable to break between one
30 perforation and another and the clothing to be injured. No such difficulty arises in the Gardner seat.

Q. 5. Please examine the chair seat marked "Complainants' Exhibit Defendants' Chair Seat, J. K., Special Examiner," and say whether or not you find embodied therein the invention described in said Gardner reissue, and specified in the claims thereof, and give your reasons for any opinion you may express.

A. I have examined the said seat, and I do find therein the subject-matter set forth in the said reissue patent of complainants. I find that the said "chair seat is formed of laminæ of wood, with the grain crossing, glued together and concave on the upper surface and convex on the lower surface, and adapted to a chair frame;" hence the said exhibit corresponds exactly with the subject of the first claim in the said reissue letters patent. The said exhibit is a "chair seat made of laminæ of wood, glued together, with the grains in one layer crossing those of the next, concave on the upper surface, convex on the lower surface and perforated," and hence corresponds exactly with the subject-matter of the second claim in said complainants' reissue letters patent.

Adjourned to Friday, October 29th, 1880, at eleven a. m.

(Cross-examination waived.—FROST & COE, *Sol'rs and of Counsel for Def'ts.*)

LEMUEL W. SERRELL.

Subscribed and sworn to before me, this day of November, 1880.

JAMES KEARNEY,
Special Examiner.

31 DECEMBER 22D, 1880.

Parties met pursuant to adjournment.

Present: Mr. George Gifford, for complainants, and Mr. James P. Foster, counsel for defendants.

JAMES B. RYER, a witness of lawful age, produced on the part of the complainants, having been by me first duly cautioned and sworn to testify the truth, the whole truth, and nothing but the truth in the matter of the controversy herein, and being examined by Mr. GIFFORD, counsel for the complainants, deposes and says:

Q. 1. What is your age, residence, and occupation?

A. Age, 39 years; 140 Columbia Heights, Brooklyn; occupation, importer of and dealer in furniture, coverings, and supplies.

Q. 2. How long have you been engaged in dealing in furniture, coverings, and supplies?

A. For the past twenty years.

Q. 3. Are you acquainted with the Gardner perforated chair seats?

A. I am.

Q. 4. How long have you been acquainted with it, and what has been your opportunities and means of being acquainted with the demand for it?

A. I have been acquainted with it for the last seven or eight years. I have bought and sold them both in wholesale and retail.

Q. 5. What kind of dealers buy and sell them?

A. Jobbers and retailers.

Q. 6. How are they bought and sold and dealt in; separate from, or as parts of chairs?

A. Majority are bought and sold separate.

Q. 7. What can you say as to the utility and importance of them?
(Objected to by counsel for the defendants as leading.)

32 A. Being the cheapest and most durable.

Q. 8. Is there any other chair bottoms dealt in as an article separate from the chair?

A. There is.

Q. What?

A. What are known as leather-board, which I take to be paper.

Q. 10. What can you say of the importance of having chair seats bought and sold as an article of manufacture separate from the chair?

(Objected to by counsel for the defendant' as leading.)

A. It is a great convenience.

Q. 11. Please explain how in practice it proves to be a great convenience.

A. A person can take a pattern of an old chair they want reseated and have it cut the size of the chair they want it for and reseat it themselves or they can carry the stock on hand in squares and fit them to such stock as they may have on hand as jobbers.

Q. 12. Please state whether or not there was any article of manufacture known in the market which would meet that demand of convenience prior to the introduction of the Gardner perforated chair bottom.

A. I have not known of any prior to the Gardner perforated chair bottom.

Q. 13. Please state whether or not the demand for the Gardner perforated chair seats has increased, and generally to what extent since their introduction into use.

A. It has greatly increased, and every year becomes more popular.

Q. 14. Please state, if you know, what is the general practice of chair-makers now who desire their chairs to have the Gardner perforated seats, as to the manner and means of having them put into the chairs.

A. They buy the squares, or seats, and apply them themselves as a general thing.

33 Q. 15. What convenience, if any, does having the perforated chair seats an independent article of manufacture, separate from the chairs, afford to people, farmers and others, in the country?

(Objected to by counsel for defendant' as leading.)

A. It affords a great convenience.

Q. 16. Please state in what way.

A. That they can purchase a seat and apply it to the chair themselves.

Q. 17. Please state whether such convenience is attended with the saving of expense, and generally, if so, in what way does it save expense.

(Objected to as immaterial, irrelevant, incompetent, and as leading.)

A. It is a great saving of expense; otherwise, to have a chair reseated with cane, persons are compelled to send the chair, or send for an experienced person to reseat it at a greater cost than it could be done with a perforated seat.

Q. 18. You say that there are chair seats which are known as leather-board seats, dealt in separate from chairs; please state whether or not they were so dealt in prior to the introduction of the Gardner perforated seat, or have been introduced since the use of the Gardner perforated seats.

(Objected to as incompetent and immaterial.)

A. The leather-board seat, or paper seat, has been introduced since the Gardner perforated seat was introduced.

Q. 19. What has been the usual practice of chair manufacturers using the old material for seats, such as cane, or having the frames of the
34 chair supplied with seats, as to their sending them from the factories to be supplied with seats to save room, or for other reasons?

A. I don't understand the question.

Q. 20. I mean to ask whether, when cane has been used for chair seats, it has been customary for the manufacturers to make the cane seats in their factories, or to send the chair frames to other places to have the caning done?

(Objected to as leading.)

A. They send them out to parties who make a specialty of caning seats.

Q. 21. Why, if you know?

(Objected to by counsel for defendant' as immaterial and as calling for a mere opinion.)

A. Because it is a separate branch of manufacturing chairs. The caning is a separate branch of manufacturing chairs from the wood-work.

Q. 22. When Gardner perforated seats are used, is it the practice to put the seats in at the chair manufactory or to send the frames out to have the seats put in?

(Objected to by counsel for defendant' as immaterial and incompetent.)

A. They would procure the squares and fit the seats to the chair frames in their own factories.

Cross-examined by JAMES P. FOSTER, Esq., counsel for defendant':

X Q. 23. How long have you known thin boards to have been made and sold?

A. I have known thin and thick boards ever since I have been a boy.

X Q. 24. How thin were the thinnest boards you have ever known since you have been a boy?

35 A. That would be very difficult to state.

X Q. 25. Give us your best knowledge of the subject.

A. From a half an inch to an inch thickness.

X Q. 26. Was such thin boards made and sold prior to the Gardner seat?

A. They were.

X Q. 27. Were they accessible to farmers?

A. I should say they were.

X Q. 28. Could a farmer cut such a board and put it on a chair for a chair bottom?

A. I think he could cut the board and could nail it on a chair, but it would make a hard-looking chair seat.

X Q. 29. Such boards were planed, were they not, prior to the Gardner seat?

A. There has been boards planed as long as I can remember.

X Q. 30. Such a thin board as a chair bottom would be quite as useful as the Gardner seat, would it not?

A. No, sir.

X Q. 31. Why not?

A. Because it would not be practical or ornamental.

X Q. 32. Why do you say would not be practicable?

A. Because it could not be shaped or conformed to a seat.

X Q. 33. What shape do you refer to?

A. Oval, round, or the ordinary shape of a chair.

X Q. 34. Do you mean to be understood as saying that a thin board could not be cut to an oval or round shape, or to the ordinary shape of a chair?

A. It could be cut to the shape of a chair, but it could not be applied to a chair as a Gardner perforated seat could.

X Q. 35. Look at the chair you are sitting upon, and state what that chair seat is made of.

A. Of wood.

X Q. 36. Is it thin or thick, and is it applied to a chair or not?

A. It is thick; it is attached to a chair.

36 X Q. 37. It is applied to a chair in the manner that wooden chair seats are usually applied?

A. It is not.

X Q. 38. Wherein is it differently applied?

A. The Gardner perforated chair seat (this is not perforated), the Gardner seat, is placed upon the top of the chair frame, and nailed on with brass nails, whereas this chair, a plain board seat, appears to be let in the frame and glued on.

X Q. 39. Sure of that?

A. That is my opinion.

X Q. 40. Does the board upon which a person sits rest upon the top or upper surface of the seat frame in this chair you have examined?

A. A small portion rests upon the chair frame.

X Q. 41. Now examine that chair again and see whether it is a thick board or more than one layer of wood which forms the seat.

A. It may be two or three pieces of board glued edgeways together.

X Q. 42. Do you find underneath the seat more than one piece of board indicated by seams?

A. There appears to be three pieces of board in this seat glued together edgeways under the seat.

X Q. 43. Look at the top board upon which you sit, and state if that is one piece or not.

A. It is hard to tell from this seat, as there is so much varnish on it; on close examination, I think it is three pieces of board glued edgeways.

X Q. 44. Could this seat bottom, in your opinion, be made and sold separate from the chair?

A. In my opinion, it could not for a chair seat.

X Q. 45. Why not?

A. Because it could neither be practicable or durable.

X Q. 46. Have you had any experience or made any estimates as to the saving of expenses in reseating a chair, as between using cane and the Gardner seat?

A. I have.

37 X Q. 47. State how much expense is saved.

A. In my experience, from 30 to 40 per cent. in favor of the Gardner perforated seat.

X Q. 48. How does that compare with the expense of leather-board seats?

A. I cannot say, as I have avoided dealing in them on account of their being paper.

X Q. 49. Now state what your experience has been in the saving of expense between the cane and Gardner seats.

A. For reseating chairs, as I have stated before, from 30 to 40 per cent. in favor of the Gardner seat.

X Q. 50. Give us the details of your knowledge and acts or estimates upon which you base the statements that there is a saving of between 30 and 40 per cent. between the cane and Gardner seats.

A. During my experience in the wholesale and retail furniture business wherein we reseated chairs and applied seats to new chair frames, I found the difference in cost between recaning a chair frame with cane or reseating it with a Gardner seat to be the difference, as I have stated before, of from 30 to 40 per cent.

X Q. 51. Give us the prices.

A. W'ere it would cost 75 cents to reseat a chair with cane, besides the expense of sending to the caner and sending for it, we could buy a Gardner seat and fit it ourselves at an expense of from 40 to 50 cents a chair.

X Q. 52. How many qualities of cane are there used for chair seats?

A. There are several qualities.

X Q. 53. Do they vary in prices?

A. Not very much.

X Q. 54. Which quality, have you selected in your estimates?

A. A fair quality such as used in the average run of chairs.

X Q. 55. How many qualities of seats are there of the Gardner seats?

38 A. There are two, known as first and second class.

X Q. 56. Which quality have you selected in your estimate as compared with cane seats?

A. The first quality.

X Q. 57. When was the second quality of Gardner seat introduced?

A. I cannot state the time exactly. I should say some two or three years ago.

X Q. 58. Do you know why the second quality was introduced?

A. I do not, unless for the reason it being cheaper.

X Q. 59. What was the price of cane compared with the Gardner seat at the time of the introduction of the second grade of the Gardner seat?

A. I should judge that it was about the same price as stated in my estimate.

X Q. 60. You do not know positively?

A. It might vary 5 or 10 per cent. either way, not over 10.

X Q. 61. Did you trade with Herz & Co. at one time?

A. I did.

X Q. 62. Purchased chair seats?

A. I did.

X Q. 63. When was that?

A. Within the last two years.

X Q. 64. When did you cease purchasing chair seats of Herz & Co.?

A. Within the last three or four months.

X Q. 65. Did you have any conversation with Martin Herz at the time you stopped purchasing?

A. I think I did.

X Q. 66. Give us the conversation.

(Objected to by counsel for complainants as irrelevant and not of cross-examination, and if insisted upon the answer will be regarded as an answer to a question in chief by the defendants' counsel.)

39 A. It was something to the nature that we preferred Gardner seats and more convenient to obtain them.

JAMES B. RYER.

Subscribed and sworn to before me this 22d day of December, 1880.

JAMES KEARNEY,
Special Examiner.

JANUARY 13TH, 1881.

Parties met pursuant to adjournment.

Present: George Gifford, esq., for complainants, and James P. Foster, esq., counsel for defendants.

HENRY P. DEGRAFF, a witness of lawful age produced on the part of the complainants, having been by me first duly cautioned and sworn to testify the truth, the whole truth, and nothing but the truth in the matter of controversy, and being examined by Mr. G. GIFFORD, counsel for complainants, deposes and says:

Q. 1. What is your name, age, residence, and occupation?

A. Henry P. DeGraff; age 55, residence, Morrisania; occupation, furniture dealer, and also banker.

Q. 2. Do you hold any office in any bank; and, if so, what?

A. President of the Bowery National Bank.

Q. 3. How long have you been engaged in the furniture business?

A. Forty years.

Q. 4. Are you acquainted with the Gardner concave and perforated chair seats?

40 A. I am acquainted with the seat of a chair which is understood in the market as being a Gardner concave perforated chair seat.

Q. 5. What can you say of the importance and value of that seat to the public?

(Objected to by counsel for defendant' as immaterial and incompetent.)

A. It is a difficult question to answer. I can give my own views. I consider it a great improvement in chair seats. Firstly, because of its lightness and durability. Secondly, because of its being concave. Thirdly, because of its being perforated. Fourthly, because of its cheapness in comparison with other seats that I know of.

Q. 6. Please state how that seat is sold and used in reference to reseating chairs, that is, whether separate from the chair, or only in combination with other parts of the chair?

A. They are sold both ways—with the chair, and the seat separate.

Q. 7. What can you say as to the adaptability of that chair seat to be applied to chairs for reseating them?

A. It is well adapted and easily applied.

Q. 8. Was there anything known in the market before the introduction of that chair seat which would supply its place?

A. I am not positive as to that.

Q. 9. Was there any chair seat prior to that time which was dealt in separate from the other parts of the chair as an article of manufacture?

A. I am not positive as to time; there was another chair seat, but I don't know whether or not it was previous to this patent; I don't know when this patent was issued.

Q. 10. What other chair seat do you refer to?

A. A metal seat perforated; that was the only chair seat that I know of separate from the chair.

41 Q. 11. I refer to chair seats which are separate from the seat frame of the chair, and ask you whether such seats, so separate from the seat frame of the chairs, were dealt in as an article of commerce prior to the introduction into the market of the Gardner seat?

A. I am not positive as to the time; I know of another chair seat, but I am not positive whether it was introduced previous to the Gardner chair seat or not.

Q. 12. Do you refer in your last answer to the metal chair seats previously mentioned by you?

A. I do.

Q. 13. Was that metal chair seat kept and sold by dealers separate from the seat frame of the chair?

A. I don't know of any having been kept, or any having been sold.

Q. 14. Please state whether or not that metal chair seat was ever used to any considerable extent, or was it a failure?

(Objected to by counsel for defendant' as incompetent and as calling for a conclusion.)

A. It never was used to any extent to my knowledge; as to its being a failure I do not know of my own knowledge.

Cross-examination:

X Q. 15. Who made those metal chair seats?

A. I don't know.

X Q. 16. Where did you see them?

A. I don't think they were offered for sale; they were offered me as samples of a new invention. I am not positive that it was at my store, 87 Bowery. This was a great many years ago. I should think it was 12 or 15 years ago.

X Q. 17. How long ago did you leave your store, 87 Bowery?

42 A. About two years ago; my firm left about two years ago. I have been connected with the Bowery Bank and with DeGraff & Taylor furniture business for about the past twelve years.

X Q. 18. Were you in the furniture business alone immediately preceding your connection with the firm of DeGraff & Taylor?

A. I was.

X Q. 19. Did you have these samples of metal perforated chair seats offered you while you were alone in business?

A. I think not.

X Q. 20. Can you describe the metal seat shown you?

A. Simply a square block of metal with holes punched in it, to the best of my recollection; I did not examine it very closely.

X Q. 21. Was it called by any particular name?

A. I don't recollect; I took no interest in it.

X Q. 22. Do you know Austin S. Smith or Isaac P. Tice?

A. I don't know Smith and I would not know Tice if I saw him to-day, but I know there was such a man who had a chair seat, and I think I saw the chair seat.

X Q. 23. In what does the durability of the Gardner seat consist?

A. In its being made from veneer; where one grain runs across another it gives it great strength.

X Q. 24. How much longer could it last or be more durable than sheet-metal seat—is the Gardner seat?

A. I think the sheet-metal seat would be likely to last the longest; it is the most durable.

X Q. 25. How much cheaper is the Gardner seat than the sheet-metal seat?

A. I have no knowledge of the cost of the sheet-metal seat, therefore cannot decide as to the difference in cost.

X Q. 26. Why did you say in your direct testimony that the Gardner seat was cheaper than any other, when you don't know how much metal seats cost?

43 A. I did not take metal seats into consideration, as there are none in general use; I only took into consideration such seats as were in use generally; I compared them with cane seats.

X Q. 27. What effect has the perforating of the Gardner seat?

A. It makes the seat cooler to sit upon.

X Q. 28. Is that all?

A. I don't think of anything else.

X Q. 29. What other chair seat has perforations or holes through it?

A. Cane seat has holes through it; I have seen a slat seat with opening between the slats, but not the seat separate from the frame.

X Q. 30. Would all these seats be cool to sit upon?

A. I think so.

X Q. 31. Would they be as cool as the Gardner seat?

A. Yes.

X Q. 32. How long has cane seats been sold, to your knowledge, with the openings or holes in them?

A. They date back as far as I remember; I don't know as I can tell; it is a great many years since cane seats came in use, at least 10 or 15 years.

X Q. 33. What effect has the concave in the Gardner seat?

A. Makes it easier to sit upon; it is more in the shape of the body and it keeps you in your position in the chair, and is more comfortable to sit upon.

X Q. 34. What other chair seats, to your knowledge, have been made concave?

A. Wood seat chairs have been made concave in many cases; that is, they are hollowed out; they are not straight.

X Q. 35. How long have such chairs been made with concave seats?

A. As long as I can remember.

X Q. 36. How many years would you say?

A. At least 30 years.

X Q. 37. Were these wooden seats applied to a seat frame on a chair?

A. No, sir, not as I understand your meaning.

X Q. 38. Explain what a seat frame on a chair is.

A. It is a frame made to receive the filling or seat.

X Q. 39. These wood seats were not applied to any such frame, were they?

A. The wood seats mentioned as being hollowed out were not applied to any such seat frame.

X Q. 40. Were these wooden seats bought and sold in the market as an article of manufacture separate from seat frames and separate from any other parts of chairs?

A. I think not.

X Q. 41. Were they always attached to chairs when they were bought and sold?

A. The man who makes the frames contracts with another party for the seats, and when they come to the retailer are set up. Those chairs come to the city in what is known as a knock-down state. If I were a manufacturer of chair frames I would contract with another party to make the chair seats. A knock-down state is where the chair is ready to set. They are not set up and knocked down. They are ready to set up, the holes are bored, and tenons are made, all ready to drive together.

X Q. 42. How long have such wooden chair seats been made and sold in the market to your knowledge?

A. At least forty years, and ever since.

X Q. 43. When did you first become acquainted with the Gardner seat?

A. I am not positive as to date.

X Q. 44. Can't you give us any date as to the year?

A. I cannot; I am not positive.

X Q. 45. What was it in the Gardner seat which to your mind was an invention when you remembered the concave wooden seat and perforated metal seat?

(Objected to as not being of cross-examination of anything contained in the direct examination, as witness on the direct examination was not interrogated on anything about what constituted the invention.)

A. I can't tell you; I can't answer that question.

Redirect by Mr. GIFFORD:

Q. 46. Do you know of any metal chair seats ever having been used?

A. I do not.

H. P. DEGRAFF.

Subscribed and sworn to before me this 13th day of January, 1881.

JAMES C. KEARNEY,
Special Examiner.

FEBRUARY 7TH, 1881—10 a. m.

Present: Ph. J. O'Reilly, for complainants; Jas. P. Foster, for defendants.

JOEL W. MASON, a witness of lawful age, produced on the part of the

complainants, having been by me first duly cautioned and sworn to testify the truth, the whole truth, and nothing but the truth, in the matter of controversy herein, and being examined by Mr. O'REILLY, for complainants, testified as follows:

Q. 1. What is your name, age, residence, and occupation?

A. Joel W. Mason; age, 58; residence, 321 West 51st street, New York City; occupation, chair manufacturer and furniture dealer generally. I have been a chair manufacturer ever since I was fifteen years of age.

Q. 2. Please look at the metal chair seat now shown you, marked
46 "Complainant's Exhibit Tice," and state what, if anything, you know concerning an effort to introduce seats like it, and the success or failure thereof, giving the reasons for the same.

A. Mr. Tice, who was the patentee of the invention, about the year 1866, I think, offered these seats and chair backs, made of the like material, for sale to the house of which I am a member, J. W. Mason & Co., and it was to this house and to me he offered these seats and backs, resulting in my consummating an arrangement with him for a supply of these seats and backs for so many as we could sell. We manufactured chairs—when I say we, I mean J. W. Mason & Co.—and the arrangement was consummated through me. We manufactured a variety of chairs of staple articles, using this seat and back, and put them on the market for sale, and we found that we could not sell them so as to realize any profits from the chairs; the seats and backs costing us more than the cane cost, which we found was better adapted for the purposes intended than this kind of a seat. We found that they were heavy, rough, lacking in strength, and too expensive to be adapted to the various kind of chairs that a house like ours manufactures.

Q. 3. What became of the said metal chair seats your house had?

A. We sold some of them manufactured into chairs, and I think they were quite a number of them left over, which we either abandoned the use of or put them into chairs which we considered of little value in estimating the cost of the chairs, and sold the chairs without reckoning the seats as being of much value.

Q. 4. Please state what conclusion Tice came to in regard to the matter.

(Objected to as incompetent, immaterial, irrelevant, and notice given that motion will be made to strike from the record said question and any answer which may be given thereto.)

47 A. When I found and explained to Mr. Tice the objections which I stated here, and our inability to sell the chairs with these seats and backs even at cost, then Mr. Tice said he would try it. He said he thought he could sell them, and we then manufactured such chairs as he, Mr. Tice, thought he could sell with these seats and backs. The result was that Mr. Tice did not take but a few of the chairs so manufactured from us, giving as a reason that he could not sell them, that the thing was abandoned, or that it was not a success, or something like that, and we sold the chairs at a loss. Years after that I had a talk with Mr. Tice about his patent, and he said the same was a failure.

Q. 5. Please state what variety or class of chairs your house was manufacturing at the time you sought to introduce the Tice seat.

A. There were more than a hundred different variety of chairs; we were manufacturing a large variety of wood and cane seat chairs.

(Complainants' Exhibit Tice above referred to put in evidence by complainants.)

Cross-examined by Mr. FOSTER:

X Q. 6. Is this Exhibit Tice seat similar to those sold by your house in 1866, as testified to by you?

A. Yes, sir; about that time.

X Q. 7. Were these seats concave or the upper surface like the exhibit?

A. I am under the impression that they were flat; I can't say whether they were flat or concave.

X Q. 8. Were they perforated similar to this exhibit?

A. Yes, sir.

X Q. 9. Were they of light material as this exhibit?

A. I cannot say that they were as light; my impression is that they were heavier; I cannot say positively, as it was so long ago.

48 X Q. 10. In making these seats did you send to Mr. Tice the measure of the seat frame, or did he bring the seats ready made and you make the chairs to fit the seats?

A. No; Mr. Tice came and obtained pattern of some of our principal staple articles, and made his seats and backs to fit them.

X Q. 11. How many chairs with the Tice seat do you feel safe in saying were made and sold by your house?

A. I feel safe in saying it was at least 100, and I think considerable more; the number are on our books.

X Q. 12. Describe the chairs upon which these seats were put and sold by your house.

A. Office chairs, dining chairs, nurse rocking chairs, and what is technically known as a bald top or square post chairs; those are all the kinds I remember.

X Q. 13. How often in your experience as a chair dealer has it occurred that you sold chairs without realizing any profits from the chairs?

A. Well, I think every two or three years since I have been in business there has been chairs sold without profit.

X Q. 14. Suppose the Tice seats were made of thick metal, would it be strong enough for a chair seat?

(Objected to as incompetent.)

A. It might be if it was thick enough; there is no question about it, and if properly secured to the seat frame. However strong, if not properly secured to the seat frame, it is a failure.

X Q. 15. When you said the Tice seats your house sold were lacking in strength, did you mean that it was an inherent difficulty in the material used, or that Mr. Tice at that time did not use thick enough material?

A. No—to the first part of the question; and to the second, while he may have used thick enough material, he may not have it properly

49 fastened. The fastening of the seats which Mr. Tice brought were too close to the border, and the border was not properly fastened to the seat.

X Q. 16. In reckoning a profit on a chair do you calculate price of the chair and the chair seats separate?

A. In arriving at the profit we put down the cost of every article which

enters into or constitutes a chair separate, then we add to that the cost of the labor put upon it; then we add a percentage to that to cover rent, clerk hire, cartage, &c., &c., and all other expenses, and all above that is profit. The seat is reckoned separate from the other parts.

X Q. 17. Were there any houses which manufactured a class of chairs which were more expensive either in the manufacture or the price obtained therefor than those chairs upon which your house put the Tice seat during the time you sold said seats?

A. Yes; we did, too. We manufactured chairs which were more expensive than these chairs. Those chairs that we sold the most we put those seats on. We did not consider those seats adapted to high-price chairs.

X Q. 18. In adapting the seat to a chair, if the other parts are more expensive the seat can also be more expensive, can it not?

A. Certainly; one can be expensive and the other less. We generally make the seat to correspond, so there will be no inconsistency about it.

X Q. 18½. When this consistency in the chair exists and the seat is expensive, and the other parts are expensive, do you make or lose money on such chairs?

A. I do not know that I lost money on the chairs you describe, except that perhaps that they went out of fashion and sold them for less than the cost of them.

X Q. 19. When you take a cheap chair and put on an expensive seat that is an inconsistency, is it not?

A. Yes, sir. There should be a sort of unison.

50 X Q. 20. In such a case would you be able to sell the chair as a rule for any higher price than the chair would bring with a cheap seat?

(This line of questions is objected to as immaterial.)

A. To put a very superior seat into a very common chair, I would be able probably to get a higher price for such a chair than I would for one with a common seat in, but not enough more to warrant me to do it.

X Q. 21. Have you known of sheet metal or iron seats in chairs to be made which were not rough?

(Objected to as not alluded to on the direct examination and as forming a part of defendant's case.

Def't's counsel refers to the answer to question No. 2.)

A. I don't remember having seen any except those manufactured by Mr. Tice, and they were rough. I refer to the perforated seats.

X Q. 22. How long have you known of the custom referred to by you of chair seats made and sold separate from the chair or the seat frame?

(Objected to, as no such custom is shown or referred to.)

A. I have not known of any one to sell the iron seat before Mr. Tice sold them; other seats, wood seats and cane seats, have been sold for 25 years.

X Q. 23. Has it been during that time a matter of convenience to the dealers in chairs or the purchaser of chairs to be able to purchase the seats separate from the chairs?

(Objected to as not alluded to in the direct examination and as forming part of defendant's case.)

A. Manufacturers have bought both wood and chair seats separate from the chairs for about 25 years.

51 X Q. 24. Was the idea new in 1866 or in 1872 of making and selling chair seats separate from the seat frame?

(Objected to as last above.)

A. To my knowledge they have been so sold for 25 years; that is cane and wood seats.

Redirect:

Re D. 25. Please state what you consider to be a chair seat.

A. Strictly speaking, to constitute a complete chair seat it would not only require the iron, if made of iron, or cane, if made of cane, and the frame to which the iron or cane is attached, although in referring to Exhibit Tice I have called it a chair seat.

Re D. 26. Then, Mr. Mason, so far as your experience goes, have you, or have you not, known a seat, irrespective of its frame, to be sold other than the Tice seat up to 1872?

A. I cannot give the date; I never knew chair seats, irrespective of the frame, to be sold prior to the Tice.

Re D. 27. Who else since Tice, has put chair seats proper in the market; I mean without the frame?

A. There were a great many, and I don't call to mind the names, except the Gardner concern, and the Haywards.

Re D. 28. You say that you think every 2 or 3 years there has been chairs sold without a profit?

A. Every 2 or 3 years I have sold some chairs without a profit.

Re D. 29. Now give us the reason why you did it.

A. Because they were either small fractional parts of dozen of kinds which we had quit making on account of being out of fashion, and others better and more fashionable chairs had superseded them.

52 Re D. 30. Suppose the Tice seats were thick enough for purposes of strength, what can you say whether or not they would then be too heavy?

A. I should say they would be too heavy, unquestionably.

Recross:

(Complainants' Exhibit Gardner Chair Seat is shown to the witness.)

Re X Q. 31. Is this exhibit, now shown you, in your opinion, a chair seat? And give any reasons for your answer that you may choose to give.

A. In my judgment it constitutes a part of a chair seat, but is usually bought and sold as a chair seat.

Re X Q. 32. What other parts, if any, are necessary to make this exhibit a chair seat?

A. In my judgment, to make it a complete seat it requires the frame to which this usually so-called seat is attached.

Re X Q. 33. How long have you known of solid wooden seat bottoms, or chair seats, to have been made and sold in the market, on what are known as kitchen chairs?

(Objected to as incompetent.)

A. For more than 40 years the wooden seat has been sold.

Redirect:

Re D. 34. Look at the article now shown you and say what you call it.

A. A wooden chair seat.

Re D. 35. Why do you call it a chair seat when no frames attached thereto, as defined by you heretofore?

53 A. Because it is a complete seat in itself, and without any addition is ready to receive the under and upper part of the chair, which in the Tice seat is not, nor the Gardner.

Re D. 36. Look at the Complainants' Exhibit Gardner Chair Seat, and, if your house use such, please state for what, if anything, they are substituted.

(Objected to on the ground that the chair seat is not substituted for anything, but used for its own purpose, to wit, for a chair seat.)

A. Our house does use them, or use this so-called seat, or part of a seat, in place of cane. I do not know that we use them in place of anything else but cane.

(The seat referred to in the question before the last is offered in evidence for complainants, and marked "Complainants' Exhibit Wood Seat.")

Re D. 37. Could seats like Complainants' Exhibit Wood Seat be used for seating or reseating as a substitute for cane?

A. It might be but it would be an uncouth, bungling affair.

Recross:

Re X 38. Are you acquainted with the Hayward wooden seat, patented December 21st, 1867, which is shown on the office chair in the office of complainants' counsel, and state whether that chair seat is put on chairs which have been or are usually made with cane seats, and if said Hayward seat is a proper and sightly affair, and not uncouth and bungling.

A. Take this seat which the counsel has put before me, and put it upon a frame or cane seat it would be a bungling and improper thing to do, but to take out the inside of the seat, the thin portion of it, it might be used in place of cane on a frame. It takes the frame to make the seat complete.

54 Redirect:

Re D. 39. Could the said thin portion of the Hayward seat be nailed to the frame without splitting?

A. It would be a very difficult thing to do; it could be hardly done with any sense of safety.

Re D. 40. Are the Gardner chair seats, to your knowledge, in all cases applied to the seat-frame of the chair with nails, or are they also applied with glue or other cement similar to the manner of the Hayward seat?

A. Always with nails, so far as I know.

Re D. 41. Could it be done with glue or cement?

A. I know it could be done, but not properly.

JOEL W. MASON.

Subscribed and sworn to before me this 7th day of February, 1881.

JAMES KEARNEY,
Special Examiner.

Adjourned to February 8th, 1881, at two o'clock p. m.

FEBRUARY 8TH, 1881—2 p. m.

Parties met pursuant to adjournment.

Present: Ph. J. O'Reilly, for complainants; Jas. P. Foster, for defendants.

MARTIN FECHTMAN, a witness of lawful age, produced for complainant, being by me first duly cautioned and sworn, and being examined by Mr. O'Reilly for complainants, deposes and says as follows:

Q. 1. What is your name, age, residence, and occupation?

A. Martin Fechtman; age, 27; residence, 16 Second street, New York City; occupation, cabinet hardware and trimmings; my firm is Fechtman & Gade, of this city.

55 Q. 2. Did you ever buy from Herz & Co. of this city chair seats like the one now shown you; if yea, about when, and how many?

A. I did, about September, 1879; 50 dozen.

Q. 3. State what became of those 50 dozen.

A. We kept them in stock in a very conspicuous place, showed them to all our customers, and were able to sell but about 3 dozen.

Q. 4. Why not?

(Objected to as immaterial, irrelevant, incompetent, argumentative, calling for a conclusion, and the witness has not been called as, or shown to be, an expert in regard to the thing testified to.)

A. For the reason that the customers have had them and used them, and found they were not fit for the purpose intended for them, and I know myself they were worthless, because I broke two seats in the presence of Mr. Herz's representative; the same seats having been fastened to the chairs by themselves and sent to us as sample seats.

Q. 5. What led to the breaking of these two seats?

(Objected to as incompetent and immaterial.)

A. My knee led to it; my knee broke it by showing Mr. Adler how weak and worthless the slats were.

Q. 6. What, if anything, had he said in regard to this subject? I mean as to the strength of this seat in comparison with any other.

(Objected to as before, and also on the ground that the question is res adjudicata between the parties to this suit regarding the chair bottom heretofore made by Herz & Co.)

A. Mr. Adler claimed that the seat was equally as strong as Gardner's, and had the advantage of being more elastic.

56 Q. 7. Did you agree or disagree with him as to that?

(Same objection.)

A. I disagreed with him after having had the seats.

Q. 8. Did or not this disagreement lead to the breaking of those two seats as an experiment?

(Same objection.)

A. I found, previous to breaking those seats, through customers, that the seats were not strong enough for the customers, and in order to verify the same, I broke them in his presence.

Q. 9. Please specify the complaints that your customers made against these Herz seats.

(Same objection.)

A. They complained that the slats were easily broken and would catch the clothes of persons sitting on them.

Q. 10. What became of that portion of the 50 dozen which you were unable to sell?

(Same objection.)

A. I returned them to Herz & Company.

Q. 11. What did Herz & Co. then do?

(Same objection.)

A. By agreement made before seats were returned, they exchanged them for 3-ply veneer concave perforated seats, exactly like Complainants' Exhibit Defendants' Chair Seat, with the exception of the manufacturer's mark.

Q. 12. What, if anything, was said to you by Herz & Co. as to damages for your selling perforated seats like the one just referred to?

(Same objection, and as leading.)

57 A. I told them that I feared suit for damages by reason of selling their seats, as I had been notified of such by Gardner & Co.; they then promised me an indemnity bond to cover any proceedings which may be taken against me on account of these seats.

Q. 13. What, if anything, did Herz & Co. or their representative say as to the success or non-success of this said slatted seat?

A. Their representative said that their slatted seat was not a success.

(Chair seat first referred to by the witness put in evidence by complainants, and marked "Complainants' Exhibit Herz 1879 Seat.")

And the said witness being cross-examined by Mr. FOSTER, for defendant, he deposes and says:

X Q. 14. How long have you known Gardner & Co.?

A. Personally about 8 years.

X Q. 15. Do you know when the Gardner seat bottom was first introduced into market?

A. Yes, sir.

X Q. 16. When?

A. About ten years ago, as near as I can remember.

X Q. 17. You knew of their seat then before you knew them?

A. I knew there was such a concern as Gardner & Co.; I did not know them personally.

X Q. 18. What part of the year ten years ago were these Gardner seat bottoms introduced into market?

A. I can't remember—I did not say ten years ago; I said about ten years ago.

X Q. 19. What causes you to say they were introduced about ten years ago?

A. My memory; I saw them thrown on the sidewalk for persons to walk over to test their strength.

X Q. 20. Where was this?

58 A. At 110 Bowery, New York City.

X Q. 21. Was this time when you saw them on the sidewalk to test their strength the first time that you ever saw such seat bottoms?

A. Yes, sir.

X Q. 22. What part of the year was it?

A. I don't remember.

X Q. 23. What other circumstance fixes it in your mind that it was about 10 years ago?

A. Well, I figure back the time I went into business, and how many years it was previous to my leaving my employer.

X Q. 24. How many years previous to you leaving your employer did you see these seat bottoms?

A. About six and one-half years.

X Q. 25. What fixes that length of time in your mind; anything more than your memory?

A. No.

X Q. 26. You can't even state whether it was winter or summer that you saw those seat bottoms on the sidewalk?

A. That I don't remember.

X Q. 27. Were you alone that time?

A. Yes, sir; I not only saw them once, but several times.

X Q. 28. Were you alone each time that you saw them?

A. I am pretty sure I was.

X Q. 29. Describe how they were laid on the sidewalk.

(Objected to as immaterial.)

A. They were laid bottom up.

X Q. 30. How did you know what they were?

A. I stopped, out of curiosity, to see, and as it was in my line of business it attracted my attention.

X Q. 31. Would looking at them tell you what they were?

59 A. No, sir; but by looking I saw what use they were put to.

X Q. 32. What use were they put to?

A. For chair bottoms.

X Q. 33. There on the sidewalk they were used for that purpose?

A. No, sir; I believe I stated before they were put there to show their strength.

X Q. 34. You said before, "by looking I saw what use they were put to;" explain how you saw what use they were put to by looking at them.

A. There were also, as far as I can recollect, signs showing their object.

X Q. 35. Did looking at the chair bottoms or the signs tell you what use they were put to?

A. Both.

X Q. 36. And without the signs would you have known, the first time you saw them, what they were for?

A. I cannot answer; I don't know.

X Q. 37. What do you think about it?

A. What do you mean?

X Q. 38. Would you have known what the things on the sidewalk were for without the signs that you say were hung up about them?

A. I have already answered that question.

X Q. 39. Do you mean by the answer "I cannot answer," "I don't know;" and, if so, is that the only answer you can make to my inquiry?

(Objected to on the ground that the line of inquiry is frivolous as having no connection with the direct examination.)

A. My impression is that the seat itself showed itself to me what it was intended for.

X Q. 40. That is your impression?

A. It is my belief, also.

60 X Q. 41. Were you subpœnaed to testify in this case?
A. No.
X Q. 42. Who asked you to come as a witness?
A. Mr. O. L. Gardner.
X Q. 43. When did he ask you?
A. Yesterday.
X Q. 44. What did he say?
A. He asked me to be here and testify as to my knowledge and experience of the chair bottoms.
X Q. 45. What, if anything, did he say about your testimony in relation to the slat seat, as you term it?
A. He told me I would be called on to testify regarding its use or utility.
X Q. 46. What experiments have you ever tried with the Gardner seats to test their strength?
A. We have used them home for years, and customers have not made complaints.
X Q. 47. Are those the only experiments you can testify to with the Gardner seats?
(Objected to as assumptive.)
A. Yes. They are the ordinary experiments. I have also had them in use in my store. I have never experimented on them particularly for the purpose of examining their quality.
X Q. 49. Did you ever attempt to jam your knee through one of the Gardner seats?
A. No, but I have stood on them often.
X Q. 50. Have you ever stood on one of the slat seats, as you term it?
A. Not on the seat, but on the borders of the chair. I am afraid of my life to stand on them.
X Q. 51. Are you willing to say positively that with this knowledge you bought 50 dozen from Herz & Co.?
A. No; I bought the seats before I knew they were what I consider worthless.
61 X Q. 52. Do you or do you not consider what you term the slatted seat the same as the Gardner seat?
A. I consider it to be the same in the body of the seat, only 3-ply veneer.
X Q. 53. Is or is not the slatted seat perforated?
A. I would not call it perforated.
X Q. 54. What is, in your opinion, perforation?
A. I would call perforation openings of equal size; for instance, I would call that (referring to Complainant's Exhibit Gardner Chair Seat) a perforation, and not that (referring to Complainant's Exhibit Herz 1879 Seat).
X Q. 55. Don't you know that Gardner & Co. sued Herz & Co. in 1879 on that slatted seat, and they claimed that was the same as the Gardner seat in dispute in this case?
(Objected to as involving matters which, if true, can be proved by the record only.)
A. I know that Gardner & Co. sued Herz & Co., but know nothing of the points of the case.
X Q. 56. If the perforations in the slatted seat did not extend all the

way across continuously, but intervals of wood were left uncut, the seat would be stronger, would it not?

(Objected to as irrelevant and immaterial.)

A. I believe it would.

X Q. 57. Then the real difference in point of strength between the slatted seat and the Gardner seat consisted in the length of the perforation in the slatted seat?

(Objected to as unfounded.)

A. The slatted seat is deficient in strength on account of the length of the slats.

X Q. 58. The length of the slats are dependent upon the length of the slot or perforation, are they not?

62 A. I do not consider it a perforation; not necessarily.

X Q. 59. Can you have a slat without a slot each side of it?

A. Not on seats; no.

X Q. 60. If the slats run the whole width of the seat the slot would be the same length as the slats, would it not?

A. There would be no seat if the slat run the whole length of the seat.

X Q. 61. Now run the slats from one side of the seat, commencing a half inch or an inch from the edge to within an inch or a half inch of the opposite, would not these two slats make a slot of the same length of the slats?

A. Yes.

X Q. 62. And if these slats ran only half way across or a quarter of an inch, they would make slots of the same length as the slats, would it not?

A. Yes.

X Q. 63. Is there anything else upon which the length of the slot depends except the length of the slat?

A. In what respect? I do not understand the question; it must be explained to me.

X Q. 64. Is there anything else than the length of the slat which determines and fixes the length of the slot?

A. I am not a mechanic.

X Q. 65. Do you mean to say you cannot answer the question?

A. I mean to say the question is put in such words that I cannot understand the sense of it.

X Q. 66. If you have a seat 8 inches wide and cut two slats parallel to each other, one-half inch apart through the seat, stopping at each side one inch from the edge, you would make a slot between those two cuts or slats six inches long, would you not?

A. Yes, sir.

X Q. 67. Is it, or is it not, the cuts or slats just described which forms the slot?

63 A. Yes.

X Q. 68. If you increase the size of your seat and proportionately lengthen or shorten the cuts or slots just described you will lengthen or shorten the slat, will you not?

A. Yes.

X Q. 69. Is it not then, in every case, the length of the cuts or slats which fixes the length of the slot?

A. Yes.

X Q. 70. And the shorter the cuts, and hence shorter the slots, the stronger will be the slat, will it not?

(Objected to as incompetent and irrelevant.)

A. I think so.

X Q. 71. Did you ever have a conversation with John K. Mayo or Martin Herz in relation to an indemnity bond for selling their chair seats?

A. I did with their representative, the person who sold me the 50 dozen chair seats, but not with them personally.

X Q. 72. Did you ever get any writing agreement, letter, or bond from said Mayo or Herz, or either of them?

A. No, sir; and never asked for it.

X Q. 73. Did you know whether the person who sold you the 50 dozen chair seats had any authority to agree to indemnify you in their name?

A. I know he was the authorized agent of Herz & Co.

X Q. 74. Did you know it at the time you bought the 50 dozen seats?

A. No further than from his representations.

X Q. 75. Did he represent that he was authorized to indemnify you in the name of Herz & Co. against damages to Gardner & Co.?

A. He said Herz & Co. would give us a bond of indemnity; I
64 did not ask him whether he was fully authorized to do that; he did not say that he was authorized to do it.

X Q. 76. Did you ever get that bond?

A. I never asked for it—never got it.

MARTIN FECHTMAN.

Subscribed and sworn to before me this 8th day of February, 1881.

JAMES KEARNEY,
Special Examiner.

JOHN BOWMAN, a witness of lawful age, produced on the part of the complainant, having been by me first duly cautioned and sworn, being examined by Mr. O'REILLY for complainant, deposes and says:

Q. 1. What is your name, age, residence, and occupation?

A. John Bowman; age, 46 years; residence, Brooklyn, N. Y.; occupation, book-keeper for Gardner & Co.

Q. 2. Please present, if you have it, a statement from the books of said Gardner & Co. showing their sales of the Gardner perforated concave chair seats monthly from and including the month of April, 1875, to and including the month of December, 1880.

(Objected to as incompetent, irrelevant, and immaterial, and as not the best evidence; and defendant shall move to strike the same from the record.)

A. I present such a statement.

Q. 3. Does this statement represent or not the sales of chair seats separate from their frames?

A. It does, except a small portion included in this statement were sold
65 attached to chair frames; in 1875 and 1876 very few, if any; in 1877 and 1878 about one per cent. of the total in those years, and in 1879 and 1880 about two per cent.

Q. 4. By whom has this statement been prepared?
(Same objection.)
A. By the assistant book-keeper, under my direction.
Q. 5. How long have you been book-keeper for Gardner & Co.?
A. Since April, 1875.
(Statement offered in evidence, and marked "Complainants' Exhibit Statement of Gardner Sales.")

Cross-examined by Mr. FOSTER for defendant:

X Q. 6. Who wrote out this statement?
A. The assistant book-keeper.
X Q. 7. What part did you take in the preparation of this statement?
A. I took the book and called them off, each month's sales.
X Q. 8. After they were written down did you compare them with the book personally?
A. I did with an original statement, and that with this copy.
X Q. 9. Then you did not compare this copy with the book?
A. Not direct; no, sir.
X Q. 10. Then you are not positive that it is correct with the books?
(Objected to as unfounded.)
A. I believe it is with the book.

JOHN BOWMAN.

Subscribed and sworn to before me this 8th day of February, 1881.
JAMES KEARNEY,
Special Examiner.

66 U. S. circuit court, southern district of New York.

WILLIAM GARDNER ET AL.
vs.
MARTIN HERZ AND JOHN K. MAYO. } In equity.

Proofs for rebuttal on final hearing, taken on the part of the complainants under and pursuant to the 67th rule in equity, as amended, of the Supreme Court of the United States, before me.

JOHN DELAHUNTY,
Notary Public and Special Examiner by Consent.

NEW YORK, *August 30th*, 1881.

Parties met pursuant to notice.

Present: Phillip J. O'Reilly, esq., of counsel for complainants; James P. Foster, esq., counsel for defendants.

It is consented by counsel for the respective parties that testimony for final hearing on the part of the complainants may be taken before John Delahunty, a notary public in and for the city and county of New York, with the same force and effect as if he were duly appointed by the court a special examiner in the cause.

67 GEORGE GARDNER, a witness of lawful age, produced on the part of the complainants, having been by me first duly cautioned and

sworn to testify the truth, the whole truth, and nothing but the truth in the matter of controversy herein, and being examined by Mr. O'REILLY, of counsel for complainants, deposes and says:

Q. 1. Are you the same George Gardner who has heretofore been examined as a witness in behalf of the defendants?

A. Yes, sir.

Q. 2. Have you any interest in this suit or the Gardner Reissue Patent No. 9094, on which this suit is brought?

A. No, sir.

Q. 3. Before making the invention set forth in said reissue No. 9094, had you or not taken out patents for inventions of your own?

A. Yes, sir.

Q. 4. Please specify for what inventions these patents were granted.

A. I had a patent for a water-wheel, sewing-machine cover, a veneer cutting machine, and a number of others. I couldn't tell what they were now unless I looked them up; and I made a number of applications and got refused on them. I had a patent for a brace-chair—a portable chair. That is all I can remember at present.

Q. 5. Please state what, if any, mechanical trades you have followed.

A. Well, when I worked journey work I was considered capable of taking charge of any kind of wood work. I was foreman in a pattern factory when I was twenty years old. I was after that foreman in a clock-case factory, and I was foreman in a picture-frame factory, and the last that I was in I was foreman in an oval and circular-frame factory. The last journey work I worked I got $50 a week, and that was in a place
where they made a little of everything, wood work, anything that
68 was brought in. Since that I have built several houses, mill-dams, water-works, and machinery of various kinds.

Q. 6. Before making the invention of a chair seat as shown in said reissue No. 9094, please state the different chair seats with which you were acquainted.

A. Cane seat, solid wood seat, rush bottom splint seat, and upholstered.

Q. 7. Please state the circumstances, if any, which led you to make the invention shown in said reissue 9094, consisting of a three-ply cross-grain veneered concave, perforated chair seat.

A. Well, I was superintendent of a chair factory known as the Clarksville Manufacturing Company, situated at Clarksville, Hunterdon County, New Jersey; sometimes that place is called Glen Gardner—of late years it has been called Glen Gardner.

Q. 8. Please state what kind of chairs and chair seats were made at this factory.

A. Black-walnut and birch-wood chairs made with cane seats.

Q. 9. Please state about how many of such chairs were made annually at said factory.

A. I think we made about two or three thousand a month, as near as I can remember.

Q. 10. In what localities were the customers who bought these chairs made at that factory?

A. Principally through Pennsylvania and the mining towns—Scranton, Reading, Pottsville, Wilkesbarre, and others I can't remember, and some few in Philadelphia, and a few in New York.

Q. 11. Please specify any difficulty you found in furnishing said chairs with cane seats.

(Objected to as not in rebuttal.)

A. The girls were very scarce in country towns; they annoyed me in the price they wanted for putting them in, and getting them done so as to fill the orders, and the price that they charged for doing it. It led me to study up something else.

69

Q. 12. Do you mean that the factory employed girls to cane seat the chairs made there?

A. Yes, sir.

Q. 13. What price did the girls demand and receive for cane seating a chair?

A. Fifteen cents.

Q. 14. What did it cost the company for the cane with which each chair was seated?

A. Ten to eleven cents.

Q. 15. And what would the cost of the cane and the cost of caning amount to?

A. Twenty-five cents and upward.

Q. 16. What influence did this cost have as to the company making its business profitable?

(Objected to as not in rebuttal, incompetent, and immaterial.)

A. It made the chairs cost too much; it made them cost so much that we couldn't sell them; we found we must have a cheaper seat.

Q. 17. Please state if this is what led you to make your invention.

(Objected to as leading and as not in rebuttal.)

A. Yes, sir; that is it.

Q. 18. Please state what you did, mentally and physically, to produce something to be used in chairs instead of cane.

A. I studied for, I think, maybe five or six months, and I was on my way to New York, sitting in the smoking car smoking a cigar all alone, and there I got the idea of trying to make a seat to imitate cane out of thin layers of wood, and while in New York bought some thin wood, took it home in the country with me, and had one of our men make what we term cauls, concave and convex, with a dishing, I think, of about 12 inches in diameter. Then that night we put thre thin veneers with glue on in between the cauls; that lay over night; in the morning took them out and laid it out in straight lines and bored rows of holes in it; we took it up to my own house and put it on one of my dining-room chairs that had the cane broken out; gave it a thorough trial by letting my children jump on it for maybe three or four weeks; then I made application for a patent soon after that; I found the seat to be good and durable.

70

Q. 19. Please describe particularly the construction of the chair seat of which you got the idea while riding in the cars; I mean state the separate elements which entered into its composition.

A. Three thin layers of wood with the grain running crossways, concave or dishing—I don't know which you would call it—of a circle of about one foot in diameter and five-eights of an inch deep, if I remember; then I put holes in it to make it imitate cane in general appearance.

Q. 20. Please state whether or not the said idea which you formed was

to have a chair seat composed of three cross-grained veneers glued together and made concave and perforated.

A. Yes, sir; that was my first thought.

Q. 21. Please state what your idea was in taking as part of your idea a three-ply, cross-grained veneer.

A. So that it couldn't split, and give it strength.

Q. 22. Under what action did you seek to save such a material from splitting?

A. From jumping on it and shrinking; any pressure whatever on it that would make it split.

Q. 23 Did the influence of nailing a seat to a chair frame enter into the same idea?

71 A. Yes, sir; that is the reason I nailed the first one right to a chair, and I found it made the old chair frame stronger.

Q. 24. Why did it not occur to you that a single veneer or two glued veneers would be equally as good as the three cross-grained veneers you selected?

A. I was satisfied in my own mind that it wanted three veneers to make it good and strong and keep it from warping, and give it strength round the edge, so that the nails wouldn't split the edge.

Q. 24*a*. Why could not these results be attained by using a single veneer or two glued veneers?

A. From the fact that we haven't got the material there to counteract the one from pulling one way and the other the other without having the other veneer there.

Q. 25. Up to that time what had you known of veneers being glued together? State specifically.

A. I had made fancy boxes out of veneers, thin wood bird cages, with sometimes a dozen or two dozen layers of veneers with the grains running the same way, the veneers being in alternate layers of white and black, so that when sawed up in strips it made an ornamental box or bird cage.

Q. 26. What was the reason that your idea embraced making the material for the seat concave on the top portion?

A. So as to give ease in sitting; a person wouldn't slide off when he sits back; and to imitate other seats, as all seats were more or less concave.

Q. 27. What led you to include in your idea the perforating of the seat?

(Objected to, as the original patent, No. 127045 distinctly states the seat may be left solid, and it is not shown the element involved in the question was the idea of the inventor.)

72 A. My idea was for that to imitate cane, and to make it a little fancy and cool, for ornamentation and ventilation, and that water, after it got spilled on it, would run off.

Q. 28. After you had formed this idea of a chair seat, why did you go to the trouble of making a seat according to this idea, and testing it as you have stated?

(Objected to as not in rebuttal, and not shown to be the idea of the alleged invention.)

A. So as to see whether it had the strength in it that I expected to find in it, and whether it would look as nice and neat as I expected it would.

Q. 29. When you had tested your invention and found it satisfactory, please state whether or not the Clarksville Manufacturing Company adopted it instead of cane bottom.

A. Yes, sir; they did.

Q. 30. State whether or not the customers of said company bought chairs with your new seat instead of chairs with cane seats.

A. Yes, sir; they did.

Q. 31. Please state who, if any one, undertook the manufacture and sale of your seat after you patented it.

A. The Gardner Manufacturing Company leased of me on royalty.

Q. 32. Please state to what extent the Gardner company made and sold your said seats.

(Objected to unless the best evidence is produced, which would be the books of account of the witness, or of the company, or the party directly making the sales.)

A. In the neighborhood of twenty thousand a month, between twenty and thirty thousand.

(Same objection to the answer.)

73 Q. 34. About how long did the Gardner Manufacturing Company continue the manufacture and sale of your seat.

A. About one year and a half.

Q. 35. State whether or not the Gardner M'f'g Co. sold these seats to parties theretofore using cane seats and instead of cane seats.

(Objected to as incompetent, as not having been shown that the witness has any knowledge on the subject.)

A. Yes, sir; they did.

Q. 36. When the Gardner M'f'g Co. ceased making and selling these seats, who, if any one, succeeded it in the same business?

A. Gardner & Co.

Q. 37. When you had tested your first seat did you ascertain that the same could be made and sold at a cheaper price than a cane seat?

(Objected to as leading, and as not showing the facts in relation to the price.)

A. Yes, sir; I did.

Adjourned until Wednesday, August 31st, 1881, at 10.30 a. m.

NEW YORK, *August 31st*, 1881.

Met pursuant to adjournment.

Present: Counsel as before.

Direct examination of the witness, George Gardner, resumed:

Q. 39. Were it not for this new seat you got up, could or not the Clarksville company carry on its business profitably?

A. No, sir; they could not.

74 Q. 40. The defendants have introduced in evidence letters patent of the United States, granted to you and others for an improved chair seat, which patent is dated May 21, 1872, and No. 127044, a certified copy of which is in this case, and marked "Def'ts' Exhibit Gardner Patent No. 127044." Please state which invention was the first made, the one you have been describing or the one set forth in said patent 127044.

(Objected to, as the patent or the application is the best evidence, and the witness is not qualified to contradict the Patent Office record.)

A. The one I have been describing was invented the first, some two or three months.

Q. 41. What was your idea in taking out this patent, No. 127044?

A. For fear that some other parties would take it out as an improvement on the first one.

Q. 42. Please state if you at any time made inquiries in the market as to the cost of rubber for chair seats.

(Objected to as incompetent, indefinite, and as to time or place and as immaterial.)

A. Yes, sir; I stopped into Goodyear's and saw the superintendent or head salesman and inquired the price of rubber in thin sheets, and found it was expensive, too expensive for me to try; I don't remember the price.

Q. 43. About what date was this?

A. It was about from three to six months after I got this patent, as near as I can remember.

And on cross-examination by Mr. FOSTER, said witness further deposes as follows:

X Q. 44. What relation are you to the complainants in this case?

A. A brother.

75 X Q. 45. What reason had you on your former examination for refusing to answer the questions in relation to this chair seat?

(Objected to as assuming that the witness refused when the fact is otherwise as regards some points.)

A. None whatever, only by advice of counsel.

X Q. 46. Have you since that time refreshed your memory in any way; and, if so, state how—your memory in relation to chair seats.

A. None whatever, no way.

X Q. 47. How do you know, at the present time, how long the Gardner Manufacturing Company sold your chair seats on a royalty?

A. I don't know exactly; as near as I can remember, about a year and a half; I never saw an account since they stopped.

X Q. 48. Did you know this fact, how long the Gardner Manufacturing Company sold these chair seats, when you were examined before in behalf of the defendant?

(Objected to as immaterial.)

A. No, sir, I did not; I gave the time as nearly as I could possibly remember it.

X Q. 49. What time did you state when you were examined in behalf of the defendants?

A. I can't tell; I gave it as near as I could make it in my own head.

(The question and answer No. 59 of the examination of this witness of April 4th, 1881, on behalf of defendants, is shown to the witness.)

X Q. 50. The question 45 of this examination up to the question 59 you are requested to read, and state if your memory is clear in relation to the time you say you stated, during which the Gardner Manufacturing Company made these chair seats.

76 A. Yes, sir; that is as near as I can tell, a year and a half; it might have been a little more or a little less.

X Q. 51. How have you ascertained, since your examination on behalf of the defendants, how long the Gardner Manufacturing Company made and sold your seats?

A. I have not ascertained at all, in no way; I haven't seen a word or a figure, nor heard a speech of any kind.

X Q. 52. Do you know any better at the present time how long the Gardner Manufacturing Company made and sold your chair seats than you did in April, 1881, at the time when you were examined on behalf of the defendants?

A. Yes, sir; I remember that I got the patent about 1872—somewhere near there— and that they closed and stopped business in the neighborhood of 1873, and remembering that, I calculate it was somewhere about a year and a half.

X Q. 53. Did you or did you not know these facts just stated in relation to the Gardner Manufacturing Company in April, 1881, when you were examined on behalf of the defendants?

A. If I had stopped to think I could have calculated it out; yes, sir; just the same.

X Q. 54. Then you did know at the time you were examined on behalf of the defendant how long the Gardner Manufacturing Company has made and sold your seats, did you?

A. No, sir; I did not; I didn't stop to calculate, otherwise I would have known very quick; I had to stop to make some calculations as to the time.

X Q. 55. What year was it when you were foreman in the pattern factory, and where was that factory situated?

A. The factory was situated on Avenue D, between Fourth and Fifth streets, in 1849.

X Q. 56. Give in detail the kind of patterns that were made in that factory.

77 A. Patterns for pulleys, cog-wheels, flanges, pipes, cat-heads on ships, and others. Orders came in from iron foundries and we made the patterns.

X Q. 57. Were there anything like cauls or formers made at that factory?

A. No, sir; I think not.

X Q. 58. Was veneer used in making these patterns in this factory?

A. No, sir; nothing but pine and mahogany.

X Q. 59. What year was it, and where was the factory where you worked when you got $50 a week, in a place where they made a little of everything in wood-work?

A. I think it was about 1869; I can't tell the year exactly; I think it was 1867; the factory was in Chrystie street, between Houston and Stanton.

X Q. 60. Specify the different kinds of wood-work that were made at that factory.

A. Black walnut oval frames, circular frames, black walnut mouldings, models, and circular sawing of various kinds, scroll sawing, planing various kinds of lumber; that is about all that I can think of that was done while I was there; I didn't stay there very long.

X Q. 61. Was there any use of veneers at this Chrystie-street factory?

A. Yes, sir; oval frames, that is all.

X Q. 62. Describe the use of veneers in these oval frames.

A. They were bent round, one glued upon the top of the other until they were of sufficient thickness to make a frame.

X Q. 63. Did the grain of one layer cross the grain of the next?

A. No, sir; the grain all run the same way.

X Q. 64. What year was it and where did you make the sewing-machine cover?

A. It was out in the country in New Jersey, in about 1870.

78 X Q. 65. Of what was this sewing-machine cover made?

A. It was made of veneer and paper board.

X Q. 66. How many layers of veneer were used?

A. One.

X Q. 67. Was the paper board and the veneer glued together?

A. Yes, sir.

X Q. 68. What was the object of glueing veneer and paper board together?

A. Cheapness and lightness.

X Q. 69. What effect had the paper board on the veneer to prevent it from splitting?

A. Well, it would help to keep it from splitting.

X Q. 70. What was the form of these sewing-machine covers?

A. Round cornered.

X Q. 71. Was the top of these sewing-machine covers flat?

A. Yes, sir.

X Q. 72. Please describe the process of manufacturing these sewing-machine covers.

A. There was a block made of the form of the inside, paper board bent around and packed, then a small piece of muslin glued over the joint; when the glue got hard the tops were drawn out; then one veneer bent round on the outside with glue on, and tacked down so as to hold until the glue became hard; the tacks were drawn out and the cover taken off the form and a top put on it.

X Q. 73. When, to your knowledge, were cauls first made?

A. I used cauls when I was 14 years old.

X Q. 74. For what purpose?

A. For putting veneers on boxes, square boxes.

X Q. 75. Why did you select three layers of veneer for your chair seat?

79 A. I did not think anything else would do. My experience had been in wood so as to give me the impression that I must have three in order to have one counteract against the opposite one and keep it from warping and give it the proper strength; I never tried any other number.

X Q. 76. What experience in wood-working do you now refer to specially?

A. For instance, in making patterns, models, fancy boxes, and other fancy articles made out of thin wood.

X Q. 77. Describe the construction of these articles enumerated, and give the acts or the process from which you obtained your experience that three-ply veneers were necessary to a chair seat.

A. When I was at pattern making and wanted a pattern to last a long while, that was going to be hard used, I used to take three pieces of wood and put them together in order to make it strong and keep it from warp-

ing; have used two pieces with the grain crossways, but found that they would always warp, curl up. My experience was, in making fancy boxes, that if we took the veneer and put it across the grain of the other thin wood that the sides and ends would warp out of shape and gradually come off by the shinking and swelling caused by the change in the atmosphere, sometimes damp, and sometimes dry.

X Q. 78. How many years prior to making your chair seats did you possess this knowledge, that three thicknesses of veneer would be more durable and would not warp or split?

A. In the neighborhood of twenty-five years, I guess.

X Q. 79. It was a fact well known to workers in wood, was it?

A. Well, I am not so sure whether it was or not; I never heard it particularly conversed about. I learned from practice—observation from the work that I done myself.

80 X Q. 80. What experience had you in the use of cauls, which would press materials placed between them into various shapes or forms, prior to making your chair seat?

A. I had had none that would press all the material into shape except a flat.

X Q. 81. What experience did you have of cauls that would press part of the material between them?

A. In using one caul to lay a thin veneer on a half-round long strip.

X Q. 82. This use of a caul just mentioned was in what year?

A. I think it was in about 1855; it was near that year.

X Q. 83. And that use of cauls was continued by you for about how long?

A. For about one year, making clock cases.

X Q. 84. Was that a well-known and common use of cauls at that time?

A. I think it was.

X Q. 85. This use of cauls would give the concave-convex form to veneers, would it not, round the half circular strip?

A. It would give the concave one way only, on a straight line.

X Q. 86. What does the convex form on the under part of your chair seat have to do with the seat itself? What function does it perform?

A. It is only there as a natural consequence of the concave; being concave it makes it stronger, as a circle; it braces in every way.

X Q. 87. What other form than a concave in a circle can you make your chair seat?

A. I never tried to make it any other way than a circle, on account of the expense of the caul.

X Q. 88. What I want to know is, if your alleged invention of
81 a three-ply, grain-crossed, concave-convex perforated chair seat embraced any other form of a chair seat than the concave-convex in a circle.

A. When I made my model I sent it to my patent lawyer at Washington, and told him to make out the papers and put in all the claims that I was entitled to. That I cannot answer; I find people differ as to what is a concave-convex.

X Q. 89. What was your invention—a concave-convex seat in all forms of concavity and convexity, or only concave-convex in a circle?

A. When I first invented that seat and made the experiment, and found that I could put a concave in three or more veneers, I thought that my patent would cover any kind of a chair seat made out of veneers with the grain running crossways with or without concave, or put in round or square or oval or any other way to give ease to the sitting.

X Q. 90. Do you mean to be understood that any form of concavity or convexity was within your invention?

A. Yes, sir.

X Q. 91. What is your present opinion in relation to the concavity and convexity of the chair seat?

(Objected to as meaningless and irrelevant. Question withdrawn.)

X Q. 91. What is your present opinion in regard to your invention—does it include all forms of concavity, or only a concave in a circle?

(Objected to as incompetent.)

A. I am not well enough posted with the patent laws to say what that would hold; my first impression was that it would cover any kind of a three-ply veneer chair seat, whether flat or concave.

X Q. 93. You thought, and took an oath when you obtained
82 your first reissue No. 7203, that the perforations were also new; did you, at the time of making your first chair seat, consider the perforations in three-ply veneer as new?

(First part of the question objected to as unfounded.)

A. Yes, sir; I did; it was omitted by the patent lawyer in getting it; that is, I thought it was new at the time of getting it—perforations in three-ply veneer.

X Q. 94. How did you obtain your knowledge concerning the customers of the Gardner Manufacturing Company, whether they had previously bought cane-seated chairs or not?

A. I was acquainted with some of them?

X Q. 95. You have testified as to all of them.

A. I think not.

X Q. 96. Do you wish to limit your answer to the customers you were acquainted with, or do you wish to include all the customers of the Gardner M'f'g Co.?

(Q. and A. 35 of direct examination read to witness.)

A. I never knew only part of their customers.

X Q. 97. Do you wish to limit your answer to Q. 35 to those of the customers you knew?

A. To the customers I knew only.

X Q. 98. How many of those customers did you know?

A. I can't remember their names; I might have known ten, twenty, or thirty.

X Q 99. Did the Clarksville M'f'g Co. sell your veneer chair seats to the exclusion of cane seats?

A. Yes, sir, they did; we abandoned cane altogether when we got them.

X Q. 100. How long did the Clarksville Co. continue to sell your seats?

A. About two years—till they closed.

X Q. 101. During what years was it?

83 A. Between 1872 and 1874, as near as I can tell.

X Q. 102. What else did the Clarksville M'f g Co. make besides those chairs?

A. Nothing.

X Q. 103. In what year did the Clarksville Co. close up?

A. I think in the latter part of 1874.

X Q. 104. From 1872 to the latter part of 1874 did the Clarksville Co. sell any other chairs than those provided with your chair seats?

A. They sold some cane seats the forepart of the time just named—the latter part all my chair seats.

X Q. 105. How heavy were the liabilities of the Clarksville Co. when they closed up in 1874?

A. I can't tell; I wasn't there.

X Q. 106. Were you ever informed?

A. No, sir; not as I remember; I think the bills were all paid except a few hundred dollars.

X Q. 107. Who were the parties chiefly interested in the Clarksville Co. as stockholders or as officers?

A. Lewis Young was a large stockholder and president; Eli Young was stockholder and treasurer; D. W. Wells was stockholder and secretary; Edward Humphrey was stockholder; and Nicholas Atker, D. C. Anderson, Samuel Atker.

X Q. 108. What became of the Gardner M'f'g Co. which you say also sold your seats for a year and a half?

A. They had been in the frame business, and the frame business run out and they closed up with the consent of the creditors; I think that was in the latter part of 1873.

X Q. 109. Who were the parties chiefly interested in the Gardner M'f'g Co. as stockholders or officers?

A. C. H. Applegate, vice-president, I think; John Bowman was bookkeeper and secretary, I believe; William Gardner was superintendent; I am not sure how the officers did run at that time.

84 X Q. 110. Were any or all of complainants interested in the Gardner M'f'g Co. as stockholders?

A. I think not.

X Q. 111. How did it get its name of Gardner M'f'g Co.?

A. Because it was Gardner & Co. years ago, and it was organized into the Gardner M'f'g Co. by C. H. Applegate and others.

X Q. 112. What were the liabilities of the Gardner M'f'g Co. when they failed in 1873?

A. I think about $70,000.

X Q. 113. What royalty were you paid on your seats by the Gardner M'f'g Co.?

A. Three cents a piece, if I remember right, is what the lease was.

X Q. 114. If four or five layers of veneer were used with their grains crossing instead of three layers, would it make as durable and strong seat if the other elements, concavity and perforations, were also put in, as your seat is?

A. If the veneers were of the same thickness it would be a little stronger, but much more expensive.

X Q. 115. Would there be any difference between such a seat, made of four or five veneers, and your seat, except in weight and expense?

A. I don't think of any other difference now.

X Q. 116. After the failure of the Gardner M'f'g Co., who, if any one, made and sold your seats?

A. I went into the manufacturing of them myself, under the name of Gardner & Co.; I was associated with R. W. Myers, and I think my brother William's wife had a little interest in it.

X Q. 117. How long did you continue the manufacture and sale of these seats?

A. I think I continued in the company two years; then I sold out my business, including the patents, to the complainants.

85 X Q. 118. What did these complainants pay you for the patent?

A. I think it was about $15,000; it was a little in trade—part trade and part money.

X Q. 119. How much of this $15,000 was trade?

A. It was part of a lot of land that had no particular value at that time; I think it was about $2,000; the balance I took in notes.

X Q. 120. When were the notes paid?

A. They were paid as they became due—one every month, I think; in about fifteen months.

X Q. 121. They are all paid now?

A. Yes, sir.

X Q. 122. What is the date when you were sitting in the smoking-car, and the idea of this seat first occurred to you?

A. About eight or nine months before the patent was issued?

X Q. 123. That would be in September, 1871?

A. Yes, sir; that is about the time it was; I know that I made my first seat and tried it on a chair for some time—near a couple of months before I made my application for the patent; the patent was granted, but not issued for near six months.

X Q. 124. Did you ever hear of the Belter furniture, made by J. H. Belter & Co., of New York City, made of veneers with grains crossing?

A. Not until I was a witness in this case.

X Q. 125. When, if ever, did you first make the acquaintance of John K. Mayo, now deceased?

A. About 1873, I think.

X Q. 126. Were you one of the parties who purchased a half interest in J. K. Mayo's patent of 1865, No. 5173?

A. No, sir; I never purchased of him; he came to me and wanted me to, or sent Mr. Frost to me, and asked me if I didn't want to

86 buy a patent belonging to a man by the name of Mayo. I asked him what it was, and he said it was a patent for a chair seat. I asked him to explain to me. He explained it to me, and I told him I wouldn't give him five cents for it; that if he had any patent at all of that kind it was good for nothing, as it wasn't at all like mine, had no concave in it nor no perforation, and I didn't see wherein his patent covered a chair seat at all; I didn't want nothing to do with it. And another thing, I had leased my patent out, and I believe my patent was the first on record of chair seats made out of layers of wood, and that is the last I saw of him; he returned home. I was at that time out in the country, in New Jersey, where he came out to see me. I think that was about the latter part of 1873.

X Q. 127. Which one of the complainants purchased a half interest in this Mayo patent 51735?

A. That I couldn't tell positively, whether it was brother Oliver or brother William.

X Q. 128. The complainants did purchase an interest in this Mayo patent, did they not?

A. Yes, sir; I think so, but am not sure about it, whether it was they or the Gardner M'f'g Co.

X Q. 129. Don't you know, as a matter of fact, that the complainants paid some $5,000 or more for a half interest in this Mayo patent, to manufacture veneer chair seats under it?

(Objected to as irrelevant and immaterial.)

A. I know that there were some notes paid with their indorsement on that went to Mayo, but whether it was the Gardner M'f'g Co.'s notes or not I cannot tell; but it was my understanding at the time that it was purchased on account of his claiming to have a continuous seat and back.

X Q. 130. You refer in the last answer to a purchase of the interest in the Mayo patent, do you?

A. Yes, sir, that's what I understood.

87 Redirect:

Re D. Q. 131. Please state in detail why it was that the Clarksville M'f'g Co. ceased business?

A. They had a lot of old fogy farmers out there who promised to put a lot of money in there, and they never did.

Re D. Q. 132. From whom did this Clarksville Co. obtain your new seats that they put in their chairs?

A. From the Gardner M'f'g Co.; they didn't make the seats.

Re D. Q. 133. Under whose direction was the Patent Office model made, which was filed with your application for a patent for your new seat?

A. Under my direction and supervision.

Re D. Q. 134. Look at the model now shown you and state how that compares with the model you so directed made?

A. That is just about like it, as near as I can remember; I haven't seen it since it went to the Patent Office; I know mine had a concave and rows of holes and put in a frame.

(Model handed the witness in the last question is put in evidence by complainants' counsel. It is a certified duplicate of the model in the matter of the letters patent granted George Gardner and others, dated May 21, 1872, No. 127045, &c. It is marked "Complainants' Exhibit, Gardner Model, J. D., Notary Public.")

Re D. Q. 135. State whether or not all the chair seats made by you and others under your patent have been from the beginning three-ply cross-grained veneers, concave and perforated.

A. Yes, I believe they have; so far as I know they have.

88 Recross-examination:

Re X Q. 136. How much was the authorized capital of this Clarksville Co.?

A. I forget; the capital paid in was about $9,000.

Re X Q. 137. How much was the increase in the sale of chairs provided with your seat over the cane-seated chairs at the Clarksville factory?

A. I don't know how much the increase was; it was a little more, and the profit was $1.25 a dozen more.

Re X Q. 138. Have you any knowledge as to the extent of the increase in the sale of cane-bottom chairs since 1873 over the sale prior thereto?

A. I have not, none whatever; I am not in the business.

Redirect:

Re D. Q. 139. Please look at Def'ts' Exhibit, Gardner Patent No. 127044, and state how many chair seats like that specified in the claim of that patent have been made by you or others under the patent.

A. None, to my knowledge.

Recross:

Re X Q. 140. Why have none been made under this patent, No. 127044?

A. The other is much cheaper and sufficiently strong for all purposes.

GEO. GARDNER.

Sworn and subscribed to before me this 31st day of August, 1881.

JOHN DELAHUNTY,
Notary Public, N. Y. City and Co.

Adj'd to Thursday, September 1st, 1881, at 11 a. m.

89 NEW YORK, *September 1st*, 1881.

Met pursuant to adjournment.

Present, Counsel as before.

DAVID GARRISON, a witness of lawful age, produced on the part of the complainants, having been by me first duly cautioned and sworn to testify the truth, the whole truth, and nothing but the truth in the matter of controversy herein, and being examined by Mr. O'REILLY, of counsel for complainant', deposes and says as follows:

Q. 1. What is your name, age, residence, and occupation?

A. My name is David Garrison; I am 52 years of age; I reside in Philadelphia; I am in the looking-glass, picture-frame, and interior decoration business. I am a member of the firm of Hall & Garrison.

Q. 2. Please state whether you are acquainted with the Gardner three-ply cross-grained veneer concave perforated seat.

A. I am.

Q. 3. For how long have you been so acquainted?

A. Since 1872.

Q. 4. Please state to what extent, if any, you have sold such seats separate from and connected with chairs.

A. About three years—that is, as long as I have been dealing in chairs.

Q. 5. What is your view as to the value of said seat?

(Objected to as incompetent, inadmissible, and not in rebuttal.)

A. Well, I think it is one of the best seats in the market to-day, and the most practical and economical seat manufactured.

90 Q. 6. How does it compare in point of cheapness and durability with a cane seat?

(Same objection.)

A. As far as the durability is concerned I don't think there is any comparison. I don't know the difference in the price between the cane seat and the Gardner seat. The comparison I refer to, I mean in favor of the Gardner seat.

Q. 7. Please state what, if any, experience you have had in supplying the chairs of public offices with said Gardner seat.

A. I supplied, some two years ago, five departments in the new City Hall, in Philadelphia, with the Gardner seat. That is the only public building I supplied.

Q. 8. Have you or not now any orders for supplying any public department with said seats?

(Objected to as immaterial.)

A. I have orders to supply four more departments in the City Hall building with the Gardner seats.

Q. 9. Did or not the city authorities specially ask for these Gardner seats in your present order?

A. They didn't mention the Gardner seat, but called for the same seat that had been furnished some two years previously, which was the Gardner seat.

Q. 10. Do you or not sell said Gardner seats to parties for reseating chairs which had originally cane seats?

A. I do, and recommend them in preference to any other seat.

Q. 11. In case you found it impossible to obtain said Gardner seat, what kind of seat would you have to substitute?

A. From my present knowledge of chair seats, I should substitute the cane seat.

91 Q. 12. Please state what, if any, seat is the favorite chair seat among the trade in Philadelphia.

A. As far as my knowledge goes, the Gardner seat is.

Cross-examination:

X Q. 13. How extensive is your experience in the trade of chair seats?

A. I have been occupied in the furniture trade since 1873. All the furniture trade that I am acquainted with always speak in the highest terms of the Gardner seat over any other chair seat in the market.

X Q. 14. How many persons have thus spoken to you of the Gardner seat?

A. That would be impossible for me to name.

X Q. 15. How many Gardner seats have you sold?

A. I couldn't tell the number of seats outside those furnished in the public buildings; our orders are small.

X Q. 16. Can you approximate the number of the Gardner seats sold by your firm—first, to the public buildings; second, to the trade outside?

A. I could not without looking at our order-books to refer to. I keep no run of our orders with regard to numbers.

X Q. 17. How large is your present order for seats for the new City Hall?

A. Two hundred and twenty-six; that comprises all the chairs furnished in those four departments with the exception of five cane seats.

X Q. 18. Where did you obtain this number of seats from. From your memory or from your order-book?

A. From my memorandum-book that I brought on with me here to order the chairs.

X Q. 19. How many orders previous to this one have you had for the Gardner seat for any public building or department?

A. I have had orders for five departments previous to this.

92 X Q. 20. And for how many Gardner chair seats were these orders for these five departments?

A. I would have to only approximate the number, and say there was about the same proportion as there was in the four departments.

X Q. 21. Would 275 chair seats cover the previous orders, then?

A. I couldn't say. Somewhere about that, I should judge.

X Q. 22. Give us your best knowledge, how many Gardner chair seats your firm sold to other parties than for these government departments. Would the number be greater or less than those already given by you?

A. I would think it would be a little less if anything. I have only been dealing in the Gardner chair seats about three years. I only commenced handling them about three years ago.

X Q. 23. How much less would your estimate be of this outside trade? Would the number be half so much as the number of seats sold to the government departments?

A. I can't tell. I can't answer that question accurately, but my idea would be that they would be very near the same amount—a little less, if anything.

X Q. 24. Then 1,000 of the Gardner chair seats would be the extent of your trade in them, would it?

A. I think that would cover it during the time I have been having them.

X Q. 25. How much would these chair seats cost, without prying into your private affairs? Your may give either the buying or selling price, and state which it is.

A. I couldn't answer that question without having the Gardner price-list to refer to. I keep no run of that in my own mind.

X Q. 26. Do you do any selling for your firm?

A. I do not; not to any extent.

93 X Q. 27. Did you sell these 226 seats to the new City Hall departments?

A. I did not. They asked for a bid, and the bid was made up by our foreman. The bid was accepted.

X Q. 28. What was the price of the chair seats in your bid which was accepted?

A. The chair seats were included in with the other furniture; they weren't separated. I could not tell you what the price of any one particular article was.

X Q. 29. One of the complainants, Oliver L. Gardner, is now present, and you may assist your memory as to the price of the Gardner chair seats by asking him what that price is. Will you do so? I mean the price he charges you, or that appears on his price-list.

A. I don't see that I can answer that question any way except this, that I bought the seats attached to the chairs from Gardner & Co. for the new City Hall, and I didn't ask him the price of the seat separate from the chair. I don't know what the price of his seat is when applied to the chair.

X Q. 30. You testified that you sold the Gardner chair seat separate from the chair. If so, I want to know what the price of such seats was, and from this price-list I think you can give it. Please do so.

A. In referring to the Gardner price-list for my guidance I would say that the seats that I purchased separately from Mr. Gardner varied in price from ten to thirty-one cents each, subject to a discount of forty per cent.

X Q. 31. Do these figures indicate two qualities of seats—those for ten cents each the second, and those for thirty-one the first quality?

A. No, they do not include two qualities, but they include different kinds of wood that the seat is made of, and the difference in the sizes of the seat. I never knew that the Gardner Co. made but one quality of seat.

94 X Q. 32. What proportion of the Gardner chair seats that your firm has dealt in cost ten cents and what proportion thirty-one cents, subject to the discounts.

A. It is impossible for me to answer that question without having my order book to refer to.

X Q. 33. During these three years that you have dealt in the Gardner chair seat, enumerate the different kinds of other chair seats that you have sold, and your best knowledge of the number.

A. I have never sold any other chair seat but the Gardner, except it be an upholstered chair, with the exception of five cane seats that are now in the order for the new City Hall.

X Q. 34. What will the annual sales of your entire business amount to?

A. About $400,000 a year.

X Q. 35. And what proportion of that $400,000 would be for chairs and chair seats of all kinds?

A. That would be impossible for me to learn without referring to my books.

X Q. 36. What is your best knowledge on the subject? Would it be $10,000, or more, or less?

A. If I would only guess at it I should say it would be less. My trade in chairs outside of those I sell of Mr. Gardner's is very limited.

X Q. 37. As I understand your testimony, your sale of the Gardner chair seats, during three years, would not exceed $250, would it?

A. As I have bought the most of my chair seats astached to the chairs, I couldn't say the amount in value of the seats I have purchased of him; that is, the seats separately.

X Q. 38. Including the chairs provided with the Gardner chair seat, your sales would not amount to much over $500 during these three years, would they?

A. I think they would amount to at least $4,000.

X Q. 39. Then these chairs which you bought from Gardner & Co., provided with the Gardner seat, were expensively constructed chairs, were they?

95 A. I didn't look upon them as an expensively constructed chair. I looked upon them as a good, substantial chair, of heavy construction.

X Q. 40. And of what kind of wood?

A. Principally walnut.

X Q. 41. The Gardner seats which were upon these chairs were of the quality and price stated by you as from ten to thirty-one cents, with the discounts, were they?

A. I presume they were.

Redirect:

Re D. Q. 42. Please state what, if anything, you know of the trade considering that the addition of the Gardner seat to a chair frame making the whole chair stronger.

(Objected to as indefinite; not indicating stronger than what.)

A. The Gardner seat strengthens the chair very materially; more than any other seat that I know of that is in the market at the present time.

Re D. Q. 43. Please state what grade of chairs were the Gardner seats attached to which you supplied two years ago to the public department.

A. They were all first-class office chairs. All the chairs I have sold were first-class office chairs.

Re D. Q. 44. Will the same answer apply to the new order you have received?

A. Yes.

Recross:

Re X Q. 45. Look at the chair now shown you which bears the mark "Manufactured by Heywood Bros. & Co., Gardner, Mass., U. S. A. Heywood's patent chair seat, patented December 24th, 1869," which is a wooden seat seat, and state whether, in your judgment, this Hey-
96 wood chair seat strengthens the chair equally as well as the Gardner seat.

A. My judgment would be that it is not as good, as I see where it is fastened to the bottom of the chair with glue it seems to be springing off, while the Gardner chair seat is nailed and glued.

Re X Q. 46. Have you ever glued any of the Gardner seats on to the seat frame?

A. I am not positive on that; I was under the impression that they was glued as well as *m*ailed; that is, those seats that we applied to chairs.

Re X Q. 47. How did those Gardner seats wear that you glued to the seat frame, and what kind of a job did it make to glue the Gardner seat to the seat frame?

A. As I said before, I am not postive that we glued the seats to the chair. As far as the seat's wearing is concerned, I never saw one wear out yet.

Re X Q. 48. What kind of a job did it make? Are you or are you not mistaken about gluing the Gardner seat to the chair frame?

A. I think I must be mistaken.

Re X Q. 49. Why do you now say you are mistaken about gluing the Gardner seats?

A. Well, from the fact that Mr. Gardner does not glue his seats, and the seat being varnished on both sides the glue would not adhere to it unless the varnish was scraped off.

Re X Q. 50. Look at the Defendants' Exhibit Gardner Brown Chair, and examine the under side of the Gardner seat on that chair, and state if you find any varnish or shellac on the under side of that seat.

(Objected to as immaterial.)

A. I do where it comes through the perforation.

Re X Q. 51. Do you find any on the portion of the seat on the under side, which is solid?

A. I do not.

97 Re X Q. 52. Look at Defendants' Exhibit Gardner Yellow Chair, and examine the under side; state if you find any shellac or varnish on that Gardner seat except that has run through the perforation on the top of the seat.

A. I do not.

Re X Q. 53. From these examinations of these Gardner seats, would you now say that the glue would or would not adhere to the under side of the Gardner seats?

A. The glue would adhere to the seat of this chair (pointing to Defendants' Exhibit Yellow Chair), and the brown chair also.

Re X Q. 54. Have you been assured by Mr. Gardner, who is present, that the complainants make their seats all alike and finish them similar to these two chair seats you have examined?

A. No, I have not; Mr. Gardner tells me he makes two grades of seats.

Re X Q. 55. Did or did not Mr. Gardner refer to the lack of varnish or shellac on the under side of the Gardner chair seats?

A. No, he did not; I asked him if it was varnished and he didn't answer.

Re X Q. 56. Referring now to the Heywood wooden chair seat which you just examined, what would you say as to its strengthening the chair if it were nailed, as the Gardner seat is usually nailed?

A. It appears to me that it would make just as strong a chair, as I understand it is glued up of several pieces of veneer. Now I will add that I can only see two pieces, and that the top and bottom, the grain of which both run one way; now, unless there is another piece running crossways of the grain, which I am unable to see, it would not be as strong as the Gardner seat.

Re X Q. 57. Your opinion now is that if the Heywood chair seat were nailed to the chair frame instead of being glued, that it would strengthen the chair equally as well as the Gardner seat?

98 A. No; since examining this chair more carefully, I think it is only made of one piece of wood in thickness, and consequently would not be as strong as the Gardner seat.

Re X Q. 58. Now examine the Defendants' Exhibit Mayo Reissue Patent No. 3089, and say whether the chair seat made in accordance with that patent, consisting of a three-ply grain-crossing veneer, if nailed to the chair-seat frame, would strengthen the chair equally as well as the Gardner chair seat.

(Objected to as irrevelant.)

A. I think it would. I see no reason why it should not.

Redirect:

Re D. Q. 59. Please state whether or not, as you understand the Heywood chair, if its seat were nailed to the frame, instead of being glued as it is, the seat would split along the edges.

A. Yes; I think they would be apt to split along the edges if nailed, unless the seat were perfectly well seasoned.

DAVID GARRISON.

Subscribed and sworn to before me this 1st day of September, 1881.

JNO. DELAHUNTY,
Notary Public, N. Y. City and Co.

Adjourned to Friday, September 2d, 1881, at 11 a. m.

99 NEW YORK, *September 3d*, 1881.

Met pursuant to adjournment.

Present: Counsel as before.

ROBERT Wood, a witness called on behalf of the complainants, having been by me first duly cautioned and sworn, and examined by Mr. O'REILLY, testified as follows:

Q. 1. What is your name, age, residence and occupation?

A. My name is Robert Wood; I am 52 years of age; I reside in Troy, New York; I am a practical chair maker and superintendent of the Seymour Chair Company, of Troy, N. Y. I have been a practical chair maker since I was 21 years of age. I served an appenticeship of seven years, and have been with the Seymour Chair Company since May, 1854.

Q. 2. Please look at the Defendants' Exhibit Pratt Patent, and state if you are acquainted with the combination of chair seat and frame as set forth therein.

A. I am.

Q. 3. Please state in detail the circumstances of how you became acquainted with the same.

A. Pratt came up there to our factory about 1863 with a sample of his patent seat. He wanted us to manufacture and buy a right, and we made about a dozen of them to experiment on, as to the practicability of making them, and as to cheapness and durability; and we experimented on what we made for about three weeks, I think. We found they would break and the seats become uneven; and another objection we had to them we could not make them concave. Another objection was, that we could not get wood of a straight grain of that size to make them with; the wood would be cross-grained and have other imperfections in it. It was
100 not easily repaired and it was expensive to repair, and we came to the conclusion that it was impractical for us to take hold of it, and we abandoned it; it was useless to us. The glue would not hold on the back and front of the seat frame on account of the small space, the wood being across the grain.

Q. 4. Why did you try to make the Pratt seat concave?

A. Because the seat was so hard—to make it easier to sit on.

Q. 5. Would not sitting on the seat make it concave for the time being?

A. No; there would not be spring enough to the slats.

Q. 6. What would be the effect of the slats on the clothing of the person sitting thereon?

A. One slat would be apt to spring down further than another, or curl up, and their clothing would be apt to catch in them.

Q. 7. How about the slats curling before sitting on them?

A. They would keep very good before being in use, but after being in use they would twist sideways, on account of the different grains of the wood, the grain of the wood not being regular.

Q. 8. What, if any, difficulty did you find in getting the proper wood for the Pratt seats?

A. We found it would be difficult to get it, and expensive, by having to have it selected.

Q. 9. What kind of wood did you get as being proper, and what was the result?

A. We got white holly and it was the best wood we could get for that

use; and that didn't answer the purpose, for the reason that that had cross grains in it too, and would twist and warp.

Q. 10. Please state with what object this trial of the Pratt seat was made.

101 (Objected to as immaterial, incompetent, and inadmissible.)

A. Because we thought it would be less expensive than cane, and we thought it would be more durable.

Q. 11. Was the trial made to ascertain if the Pratt seat could be substituted for the cane seat?

(Same objection and also as having been answered in the previous answer.)

A. It was, and we found it could not be.

Q. 12. Why was a substitute for cane desirable to the parties making this trial?

A. On account of the high price of cane.

Q. 13. Any other reason?

A. No; I don't know of any other; the high price is what started us; it was difficult too to get labor.

Q. 14. Who was the party in whose interest this trial was made?

A. It was in the interest of the patentee and Mr. Seymour, who wished to use it in his works.

Q. 15. If the trial proved successful, what was to be done by Mr. Pratt and Mr. Seymour?

A. Mr. Seymour was to buy a right from Mr. Pratt to manufacture them. The price, as near as I can recollect, was $10,000 to be given for the right. I am not positive; it was between $5,000 and $10,000.

Q. 16. Instead of what other material would Mr. Seymour have used the Pratt seat if it had proved good?

A. Instead of cane.

Q. 17. Was or not the Pratt seat an expensive one to make?

A. It was, on account of labor and material.

Q. 18. What trouble and expense would be necessary in reseating chairs by Pratt's seats?

102 A. The trouble would be to get the old one off with the glue, and to get the new one on in its place, and get one to fit.

Q. 19. I mean in reference to reseating a cane chair.

A. The trouble would be in getting the surface of the old chair even and clean enough to get the new one on so it would stick.

Q. 20. How much trouble and expense would that take?

A. I couldn't tell exactly, but I could say it would be as expensive as the cane seat.

Q. 21. What can you say as to whether or not the Pratt seat is worthless?

(Objected to as incompetent; he is not an expert in relation to the Pratt seat.)

A. We didn't think at the time that it would be a success; that it would be practical to use it and manufacture; we didn't think it would be a substitute for a cane seat.

Q. 22. Look at the paper now shown you, and state what it is.

A. It is a drawing of a slat seat got up in place of the Pratt seat by me. The construction of this seat is the slats glued in separately in grooves cut in the seat frame.

(Drawing referred to by the witness offered in evidence by complainants' counsel, and the same is marked "Complainants' Exhibit Wood's Seat.")

Q. 23. Please state what was done with this seat of yours.

A. We manufactured over 500 dozen and we dropped it then and made cane.

Q. 24. Why was it dropped?

A. Cane be*gan* cheaper, and there was trouble with the slats becoming uneven, the same as in the other seat.

103 Q. 25. Was not this seat of yours patented March 29, 1864, as No. 42150?

A. Yes, sir.

Q. 26. Could you obtain a concave form in your seat?

A. I could not, practically.

Q. 27. What is the best substitute for cane seat that you know of?

A. The Gardner seat.

Q. 28. What seats do you use for purposes of reseating chairs?

A. We use the Gardner seat; we don't do much of reseating. In my own family I use the Gardner seat for reseating.

Q. 29. About how many chairs are annually made at the Seymour works?

A. Between thirty and forty thousand.

Q. 30. Are those chairs made to order?

A. Not all. We have our regular dealers that we supply; we know about what their demand will be.

Q. 31. State how many of the chairs annually sold by the Seymour works are seated with the Gardner seats.

A. It is a hard matter for me to tell exactly. We make them to order; we get a good many orders from Washington, Baltimore, and around that way—a good many.

Q. 32. Previous to the introduction of the Gardner seat was or not a want expressed by the trade to get a substitute for cane seats?

(Objected to as incompetent and immaterial.)

A. There was, and a good many tried to get it.

Q. 33. What seat, if any, has supplied that want to the satisfaction of the trade?

A. The Gardner seat is the only one I know of. We have tried several, but that is the best one.

Q. 34. Please state what the Seymour Co. is about to do, if anything, in regard to the Gardner seat.

(Objected to as immaterial.)

104 A. We talk of introducing it in our chairs, on account of the high price of cane and the scarcity of labor to put in cane.

Q. 35. Please state what is the only practical seat, if any, that can be applied to chairs by unskilled labor.

A. This Gardner seat is the only one I know of.

And on cross-examination by Mr. FOSTER, said witness further testified as follows:

X Q. 36. What do you mean by unskilled labor?

A. I mean persons not having the experience. I mean anybody could

put those on that never put them on before; but with cane seats they couldn't.

X Q. 37. What other seats than the Gardner seat have you ever seen or heard of that could be put on a chair-seat frame by unskilled labor?

A. The Harwood imitation paper and leather seat.

X Q. 38. How long have you been acquainted with the Harwood seat?

A. About a year, I should think.

X Q. 39. And how long have you been acquainted with the Gardner seat?

A. Almost from its first introduction; I couldn't tell the number of years.

X Q. 40. Would a chair seat made of three-ply veneer be equally as good and as easily adapted to a chair-seat frame as the Gardner seat?

A. I should think it would if made just like that.

X Q. 41. What do you mean by "if made just like that?"

A. Just like the Gardner seat—perforated.

X Q. 42. Has the perforation anything to do with adapting the Gardner seat to a chair-seat frame?

A. I should think it would—the appearance and ventilation.

105 X Q. 43. Explain how the perforations affect in any way the Gardner seat, in reseating a chair which had previously a cane seat.

A. None whatever.

X Q. 44. Explain the object or the function of the perforations in the Gardner seat.

A. The perforation, as I understand it, is to be a round, single spot or hole. It adds to the value of it by making it look better to the eye—the appearance; and in my opinion a seat with holes in it is better to sit on than a plain seat.

X Q. 45. Would you say, then, the sole object of the perforations in the Gardner seat was for ornamentation and ventilation?

A. Yes; more for ornamentation than anything else.

X Q. 46. You would lay stress, then, upon the ornamentation rather than the ventilation which these perforations give to the Gardner seat?

A. Yes; I think it helps to keep the glue dry where it is glued together, and dries out the dampness quicker in it.

X Q. 47. What was the object of cutting slots in the Pratt seat?

A. I should say to make it pliable.

X Q. 48. Did it also add to the appearance of the Pratt seat?

A. Yes; I think it did.

X Q. 49. Did the slots also ventilate the seat?

A. Certainly.

X Q. 50. The slots, then, in the Pratt seat serve to ornament and ventilate that seat just as the holes or perforations in the Gardner seat serve to ornament and ventilate it, did they?

A. No; I should say not.

X Q. 51. Why not?

A. For the reason the Pratt seat would merely have been a straight board on the seat frame, whereas I think the Gardner seat would sit equally as easy without the perforations, and the Pratt seat would not.

106 X Q. 52. Then, as I understand your opinion of the perforations in the Gardner seat, they are of no practical value in the ease or comfort of the seat?

A. No; only I think as far as ventilation is concerned, I think the seat is better. I think the holes keep the three pieces together better.

X Q. 53. What would be the difference in effect, if you know, if any, between the perforations in the Gardner seat and a square hole or an oblong hole, or any other aperture of any ornamental design, but which would not be long enough to allow of the seat becoming uneven on its surface?

A. I should think there was a good deal of difference. One is a hole, and the other I should call a slot, oblong; and they can't be made, in my judgment, oblong and be as good as a round hole. I have tried, and know by experience.

X Q. 54. Would you say, from your experience, that the only practical method of perforating the Gardner seat is by having the round holes shown in the Complainants' Exhibit Gardner Seat?

A. I should say a square hole of that size would do as well as a round one.

X Q. 55. How would scroll work answer?

(Objected to as not alluded to in the direct.)

A. I should think it wouldn't answer at all; it would make the seat weak, very weak; very easily broken.

X Q. 56. Now state what experience you have had in perforating three-ply veneer chair seats.

A. Trying to make the holes oblong instead of round, not in the Gardner seat, but in the Pratt seat.

X Q. 57. How many years ago did you do this?

A. I guess soon after the fire at the factory; the factory burned down in September, 1862.

X Q. 58. How soon after that?

A. About three years after that.

107 X Q. 59. Now state what you did perforating three-ply veneer chair seats.

A. Nothing.

X Q. 60. What attempts did you make and what was the result thereof in trying to make the Pratt seat concave? Give in details what you did.

A. I tried to press the centre slats down before glueing the piece on. Some would stay down and others would raise up after being glued on, and would not stay even.

X Q. 61. By what means did you try to press the centre slats down; did you use cauls or formers of any kind? If so, describe them.

A. I dampened the wood and then put two pieces of wood together in a former, one concave and the other convex. I left them there over night, took them out in the morning, and glued them on the seat frame.

X Q. 62. How long did the slats remain concave and convex after the seat was secured to the chair?

A. Less than a week. We tried them by using the seat all the time.

X Q. 63. Did you press the seat concave-convex while it was solid or after you had cut the slots in it?

A. After I had cut slots in it.

X Q. 64. What experience had you previous to this in pressing wood in a concave-convex form?

A. In pressing or bending chair tops; trying to bend the back and front to make a violin; and I had a great deal of experience in years of pressing and bending wood in different forms.

X Q. 65. How long a time and to what extent had you previous to 1872 pressed these chair tops in a concave-convex form?

A. Well, I bent them since 1856.

X Q. 66. Was it common and usual practice in the manufacture of chairs to press the chair hooks to concave-convex form during the years from 1856 to 1872?

108 A. Of certain kinds of chair backs, yes; we would press them in the form and then put hooks on one part of the form and keep them there to dry.

X Q. 67. Was it this experience which suggested to you that the Pratt seat would be more comfortable and better adapted for the purpose intended if it was pressed into a concave-convex form?

A. No; I knew that when I was eighteen years old, in making hollow wooden seats in Philadelphia in learning my trade.

X Q. 68. Wasn't it something entirely new in 1871, so far as you know, for George Gardner to press his seats in concave-convex form between two cauls?

A. I didn't know how he done it until I was down to his place; he told me how he done it.

X Q. 69. Was the use of cauls, one of which was concave and the other convex, to your knowledge, commonly and usually resorted to by workers in wood prior to 1871 for the purpose of pressing wood into that form?

A. Not that I know of—not in this form; they had in chair tops.

(Plaintiffs' Exhibit Bellows Seat shown the witness.)

X Q. 70. Isn't that a form of a concave-convex seat?

A. Yes.

X Q. 71. Now what was your experience prior to 1871; were seats in that form concave and convex ever made or used?

(Objected to as not alluded to in the direct.)

A. I never remember of seeing one until I saw the Gardner seat.

X Q. 72. Wasn't the Pratt seat that you pressed concave and convex?

A. No; it was only in one way; down in one way in the centre, only on one single sweep.

109 X Q. 73. Wasn't that single sweep concave and convex?

A. It was concave and convex, but not dishing.

X Q. 74. What experience have you ever had in the use of veneers prior to 1871.

A. I had considerable in veneering chair tops and bannisters.

X Q. 75. What experience have you had in pressing veneers in concave-convex forms prior to 1871?

A. Chair tops on a sweep, and one on top would answer for the caul, and you could lay half a dozen one on top of the other.

X Q. 76. Describe particularly what, if any, experience you have had prior to 1871 in gluing several layers of veneer together with their grains crossing?

A. None.

X Q. 77. Were the cane-bottom seats you have testified about always flat?

A. All we made were flat; I have seen them made otherwise than flat.

X Q. 78. Which were most commonly made?

A. The flat.

X Q. 79. Did the trade object to the flat cane seats?

A. Not that I know of; I never heard of any.

X Q. 80. What other seat than the Gardner seat is being used instead of cane?

A. I don't know of any excepting the Harwood seat; there is the woven cane seat used.

X Q. 81. (Complainants' Exhibit Pratt Seat shown witness.) Look at this seat and describe in detail any similarity or difference between it and the Pratt seat which you made in 1863.

A. All the difference between this seat and the one I made is that the piece on top extended out to the outer edge of the seat frame, whereas this is let into the seat frame, and the slots or open spaces were wider than in this exhibit.

110 X Q. 82. The wide slots which you made in the Pratt seat would make the slats narrower, and hence weaker, would they not?

A. No.

X Q. 83. Why not?

A. The slats were left the same width, but there wouldn't be so many in the seat made from the sample brought by Pratt.

X Q. 84. The effect of the wide slots was to permit the clothing to be caught between the slats, was it not?

A. I think not any more liable to than this.

X Q. 85. What did you do with the patent that you got out for the slat seat?

A. I sold it to Henry I. Seymour.

X Q. 86. How much did you get for it?

A. I only got $100. I was to get $5,000 more.

X Q. 87. What did Pratt do with his patent chair seat after you stopped making it?

A. I don't know.

X Q. 88. Did you ever hear of metal seats, or rubber seats, or gutta-percha seats, or raw-hide seats?

A. I have heard of metal seats, Tice's patent perforated iron seat. We had them up at the factory, but never used them. I have heard of and seen raw-hide seats. I never remember seeing rubber or gutta-percha seats.

X Q. 89. (The Complainants' Exhibit Bramhill Seat shown witness.) Examine this exhibit, and state how many layers or thicknesses of material you find in this seat.

A. Three layers.

X Q. 90. How, in your judgment, are these three layers secured together?

A. They are made in the manufacture.

X Q. 91. What purpose or function would the holes in that Bramhill seat exhibit perform?

111 A. They would have a tendency to make the seat weaker. The India rubber would tear easier on account of the holes being in it.

X Q. 92. How about ventilation?

A. They seem to be good for that.

X Q. 93. And when the three layers of material are secured together by an adhesive substance, these perforations in this exhibit would permit that adhesive substance to dry out, wouldn't they?

A. No, I think not, because the two outside layers are the adhesive substance themselves.

X Q. 94. But I assume an adhesive substance other than the two outside layers is placed between these layers. In that case the perforations in this exhibit would permit of this action, would they not?

A. I think not. The substance is so thin I don't think it would require that.

X Q. 95. But if your judgment should be wrong, and the outside layers were not thin enough to permit of this, then these perforations would permit of that action, would they not?

A. I think not. I think the centre layer of cloth would prevent them coming apart.

X Q. 96. The action referred to is in Q. 93, to wit, "perforations would permit the adhesive substance to dry out." That is what I understand you to say the perforations in the Gardner seat would do.

A. Yes, if there is any occasion for drying out, they would.

Redirect:

Re D. Q. 97. What has the Seymour Co. done with regard to Harwood seats?

A. They ordered a lot of them; used two in the desk chairs in the office, and found them not a success; the seat tears out by the nails; the rest are laying there yet; we don't use them.

112 Re D. Q. 98. I hand you the metal chair seat, marked "Complainants' Exhibit Tice." State what you know about such seats.

A. We have got a quantity of them at the factory, intending to use, but only put in two or three; we found them too hard to sit upon, and we discarded them.

ROBERT WOOD.

Subscribed and sworn to before me this 3d day of September, 1881.

JOHN DELAHUNTY,
Notary Public, New York City and County.

Adjourned until Thursday, September 8th, 1881, at 11 a. m.

NEW YORK, *September 8th*, 1881.

Met pursuant to adjournment.
Present: Counsel as before.

HENRY T. PRATT, a witness called in behalf of complainants, having been by me first duly cautioned and sworn, and examined by Mr. O'REILLY, testified as follows:

Q. 1. What is your name, age, place of residence, and occupation?

A. My name is Henry T. Pratt; I am 48 years of age; I reside in

New York City; I am associated with the law and collection house of J. H. Hubbell & Co., of this city.

Q. 2. Look at the Def'ts' Exhibit Pratt Patent, and state whether or not you are the same H. T. Pratt alluded to therein.

A. I am.

Q. 3. What, if any, experience have you had in the manufacture of chairs?

113 A. I have had thirty years' experience, more or less, from the time I was able to do anything. I was in my father's manufactory. My father was a chair manufacturer before me. I succeeded my father in the business eventually. I continued the manufacture of chairs until in the year 1862—December, 1862—and then I was in the army for a year. After that I came back to New York. I came back from Massachusetts, having sold out my interest in the chair business there. In 1863 I came to New York and bought an interest in a chair business already established, and continued in that business for eight years, buying and selling chairs and furniture.

Q. 4. Please state the circumstances under which you got up the chair seat described in your said patent.

A. The high price of chair cane and the monopoly existing in the manufacturing of the same suggested the idea to me of getting a substitute for cane in chairs; the invention described in my idea of necessity was the result of that idea.

Q. 5. Please state about how many chairs you were annually making at the time this necessity arose.

A. From six to eight thousand dozen cane-seated chairs.

Q. 6. Please state in detail any tests you made to ascertain the utility of the seat specified in your patent.

A. Previous to my taking out letters patent for my invention, I made tests in various ways to ascertain the strength of the slats under pressure. The severest of those tests broke some of the slats. In order to ascertain what the effect would be on the slat seat I took some of the chairs having those seats at my home, that I might see the effect from daily use. The result of that test developed the fact that some of the slats would sag or stretch, leaving an uneven surface, the pressure not being distributed over all the slats, which was an objection to the appearance of a chair seat.

These tests that I have described essentially comprised my experi-
114 ments with this seat; but about that time I sold out my interest in the chair-manufacturing business, but did not sell my patent at that time; that wasn't included in the sale. I then began to canvass for business. I went to Troy, New York, where I knew the chair manufacturing was carried on to quite an extent. While there I exhibited my patented slat seat to Mr. H. I. Seymour, who was pleased with it, and made arrangements to purchase the right from me. I sold it to him on certain conditions; that he was to pay me $1,000 on the right being assigned to him. The further condition of the sale I state from memory, of course: That when the sales of chairs having these seats had arrived at a certain quantity, I was to have $5,000 in addition; also, if the sales should increase to a certain other amount, I was to have $10,000. But Mr. Seymour did not continue to use these seats longer than to embrace the first amount named, $1,000. He then sold this patent right to the Detroit

Chair Company, thus ending my further claim on him for any further payment. The Detroit company did not succeed with my chair seat. I do not know this directly. I got my information from Mr. Seymour. That is all I can say in connection with that question.

Q. 7. When you had made the tests of your seat as you have stated, what, if any, conclusion did you arrive at as to the value of said seat?

A. Well, that it would not answer the purpose as contemplated at the time of invention, viz, a substitute for cane seats.

Q. 8. When you went to see Seymour what did you learn from him the first time?

A. When I exhibited this seat to him he told me that he thought that was just what he was looking for, to get a substitute for cane; that he had so much trouble in getting his cane seats manufactured; thereupon the initiatory steps were taken for the sale of my patent to him, which was done, as before stated.

115 Q. 9. Inasmuch as you had found your seat deficient, why was it that you pursued the matter further by endeavoring to sell the patent?

A. The experience that I had had was not sufficient to condemn it, but having sold out my manufacturing interests to my former partner, and he not having faith in the seat, I retained my patent, and in looking around for business incidentally introduced my patent slat seat to Mr. Seymour, as before described.

Q. 10. What was the result arrived at by Seymour in regard to the efficiency of your seat?

A. After he had experimented several months in making improvements and machinery, and also during this time had exhibited the improved seat to certain chair-furniture dealers in the city of New York, and having got their opinion in regard to its merits, in connection with his own, he found that he would not meet with the success that he anticipated; he at this time found an opportunity to sell the patent right and machinery which he had built especially for making these patent seats, the price for which would just about make him whole; he therefore thought it a good opportunity to extricate himself from his difficulty, having sold out to the Detroit Chair Company.

Q. 11. How did Seymour come to make the improvement in your seat?

A. I can't give any detailed account of the affair, he having experimented in my absence, and I did not know that he had made this improvement until he had taken out a patent for the same.

Q. 12. Look at the article now shown you and state what it is, if you know.

A. That is the improved slat seat which Seymour patented.

(The seat just referred to by the witness is put in evidence by complainants' counsel, and the same is marked "Complainants' Exhibit Seymour Seat, J. D., Notary Public."

116 Q. 13. How much did it cost Seymour for the machinery to make your seat and his improved seat?

A. He told me about $5,000 in round numbers.

Q. 14. What do you know about any tests being given the Seymour seat in the city of New York?

A. Soon after he made his improvements he sent several samples of

chairs having those seats to prominent furniture dealers here for their approval; after having been subjected to tests by them in the ordinary way in their offices—that is, by daily use—it was found that the slats would stretch, others would get loose; these features were very objectionable, and as a consequence the seat was condemned by them.

Q. 15. When you were about making the tests of your seat what class of wood did you select, and to what expense were you put?

A. The very best of wood that could be obtained; it was maple—hard maple. In regard to the expense I would say, without attempting an accurate estimate, that $100 would cover the same; that is, for the expense of getting up the machinery, &c.

Q. 16. How many of your chair seats did you ever make?

A. I should think about twelve dozen.

Q. 17. Look at the article now shown you and state what it is.

A. That is substantially the kind of seat that I invented and made.

(The seat last referred to by the witness is put in evidence by complainants' counsel, and is marked "Complainants' Exhibit Pratt Seat No. 2, J. D., Notary Public.")

Q. 18. Briefly stated, what was the character of seat you endeavored to get up?

A. A cheap, good looking, wooden seat, having elasticity.

117 Q. 19. After you got up your said seat, please describe what, if any, other seat you invented.

A. At the time I was doing business as a chair dealer—I should say it was about 1866—I conceived the idea of getting a wooden plank to serve as a chair seat, the object of which was to save timber and produce an easy, wooden-bottom chair; after having manufactured several samples I put confidence enough in the device to apply for letters patent, which I did; after due length of time I was informed by my attorney that my device conflicted with a patent granted several years previously to one Zebulon B. Bellows, of Cortlandville, N. Y.; upon this I made a visit to that town and ascertained that this Mr. Bellows died several years previously; I then found his widow, and bought from her her share in this patent right; after having bought said share I made further experiment on this same bent seat of mine, but found that it was impracticable for the principal purpose for which I had intended it, viz, as an article of export; I found that the seat, by exposure to the moisture of the atmosphere, would not retain its form; I therefore abandoned further efforts in making them.

Q. 20. Are you acquainted with the Gardner seat, such as is shown by the seat marked "Complainants' Exhibit Gardner Chair Seat?"

A. I have known it from its first introduction in the market.

Q. 21. On first examining it what, if any, judgment did you form concerning it?

A. I considered it the best thing for the purpose for which it was intended that I had ever seen; I will say, furthermore, that I have seen no cause since that time to change my opinion of its merits; it was intended, of course, as I understood it, as a substitute for cane seats in chairs in general use, and to be used in repairing chairs which had had cane seats.

118 Q. 22. State what, if any, action you took on seeing the Gardner seat.

A. Very soon after I sold out my store to Mr. J. W. Mason I went to him and advised him to endeavor to purchase a controlling interest in the Gardner seat, having incidentally heard that Gardner was embarrassed and would probably sell him such interest at a reasonable price; I gave to Mr. Mason my further reasons for that advice; Gardner's seat was then comparatively in its in fancy, but considering its merits from different stand-points, I thought it would prove a very valuable interest.

Adjourned to Tuesday, September 10, 1881, at 10½ o'clock.

NEW YORK, *September* 14, 1881.—11 a. m.

Present: Counsel for respective parties.

The witness, Pratt, being cross-examined by Mr. FOSTER, counsel for defendants, deposes and says:

X Q. 23. Can you describe the process of the manufacture of the Gardner seat?

A. I don't think I could; of course I have my own idea of it; I never witnessed the process.

X Q. 24. What is your idea of it?

A. I understand that the veneers are cut from the log in the ordinary way with a knife; as I understand, they are cut in the form of a ribbon, taken from the log, put into a lathe; I never saw the process; then they are cut up into squares of the desired size; then there are three thicknesses, the surface covered with glue and placed into a mould or form, and pressed into the desired form and allowed to dry; I suppose there are quite a number of layers put in the form together, constituting
119 quite a number of seats; then after they are dried or formed I conclude that the same number the form contains are perforated together; that's substantially the idea I have of the manner of making them; of couse the finishing comes in afterwards.

X Q. 25. During the time that you invented the seat similar to the Bellows seat, what, if anything, led you to make that seat concave?

A. It was to form an easy seat and save timber.

X Q. 26. What was your idea in relation to saving timber; had it any connection with concaving of the seat?

A. Well, it was to gain an advantage over the old method of making wooden-bottom chairs or seats.

X Q. 27. Describe the old method you refer to and state what advantage you gain by your process over the old method.

A. The old method was to take a thick plank, from an inch and three-quarters to two inches in thickness, and concave it either in a turning-lathe, or with an edge, or any other process of concaving, it being a matter of necessity to have a thick plank, to allow for the deep concavity; well, that is the old method; the advantages to be derived by bending the seat was in having a thin piece, or a piece much thinner than the old process, producing a neat looking and easier seat than the old one; the cost of the new one would be about the same as the old.

X Q. 28. Please describe the kind of wood and its thickness used by you in making the Bellows seat and the process of concaving it, or the concave seat invented by you.

A. I used white-wood plank or board, one and one-quarter inch in thickness; I steamed them, in order to make them flexible, then placed them in a mould or form under a pressure; when it would conform to the shape of that mould, the same was locked together and remained there until dried; this was my seat.

120 X Q. 29. What was it that gave you the idea of using moulds or forms to produce the concave in the seat?

A. My idea was to bend a wooden plank in a form that would be easy.

X Q. 30. I mean what, if any, experience had you in the use of forms oo moulds for pressing wood prior to your invention; and was it this prior use of moulds or forms which led you to use them in making your seat?

(Objected to as immaterial.)

A. I had had no experience in bending wood for seats previous to the experiments named, but have had experience in bending other parts of the chair, such as backs and posts or legs. I want to say in this connection that the principal motive that actuated me in producing or inventing a bent wooden seat was to avoid the great objection of the old method of making wooden seats, having two or more pieces, with glued joints; these same joints were liable to open when exposed to moisture in the hold of a vessel. The new process surmounted that objection, the plank forming the seat being in one solid piece. I would like to say, however, in connection with moisture in the hold of a vessel, that where chairs are knocked down and packed in cases and the same cases are packed solid together between the decks of a vessel, and these decks are sealed up tight, generating a steam from the moisture in the vessel—and oftentimes the boards which the chair cases are made from are not thoroughly seasoned; this also has a tendency to create this steam as moisture which softens the joints in the old method making *by* wooden-bottom chairs.

X Q. 31. This steam or moisture in vessels, as I understand your testimony, also affected, in some way, the concave seats which you made out of one solid piece of material?

A. I fancy that it would; I never subjected it to that test; I
121 did test it, however, by other methods—by exposing them to the damp atmosphere—the result of which was to straighten them out or lose their form.

X Q. 32. Do you know, if the Gardner seat were exposed to damp atmosphere, whether it would lose its form of concavity or not?

A. I have never tested it myself; I am of opinion, however, that, unless they were actually immersed in water and allowed to remain there for a considerable time, they would not lose their form.

X Q. 33. In making your seats concave, did you use two cauls or forms; and, if so, did your chair seat become hollow or concave on one side, convex on the other, and correspond to the form of the cauls?

A. I did; one caul corresponding with the other; that is, the two surfaces being parallel to each other in a serpentine form.

X Q. 34. What year was it, as near as you can fix it, in which you invented your bent or concave chair seat, and did you apply for letters patent thereon, and were you rejected on the Bellows patent?

(Objected to as calling for matter of record.)

A. I can't fix the date; I think, however, it was either in 1865 or 1866;

I did apply for a patent thereon, and the application was rejected because it conflicted with the said Bellows patent.

X Q. 35. Did you have any knowledge in1865 or 1866 of the use of several layers of veneer glued together, with their grains crossing?

A. No, sir.

X Q. 36. Now, assume that your description and idea of the process of making the Gardner seat is correct, will you direct your attention particularly to the forming of the concave in the Gardner seat, and point out any difference which you may find between it and your seat in respect to the concave. I refer to the process of making the concave, or the effect of the concave upon the seat.

122 (Objected to as not alluded to in the direct, and as forming part of the def'ts' case, and the answer of the witness to the question will be regarded as testimony for the defendant'.)

A. The Gardner seat, I regard, presents a true concavity, it being made in that form and composed, as it is, of three different thicknesses, with the grain of the wood running in opposite directions, and being pressed to a true concavity while the glue is liquid—that the whole being pressed together, forming one mass, as it were—that it produces a form thoroughly braced together and not liable to change that form if allowed to remain in the mould until thoroughly dried. I can illustrate the effect of a true concavity by spinning a piece of sheet metal in a lathe, forming a shallow dish or vessel; after it is put into that form it becomes very stiff, as previously in the simple sheet it would be limpid. That is my idea of the additional strength gained by a true concavity. My seat did not have this strength, or true concavity—I mean a circular concavity in speaking of a true concavity.

X Q. 37. Look at Def'ts' Exhibit Gardner Yellow Chair, and state if the form of the chair bottom in that exhibit more nearly corresponds to the form of the bent chair seat invented by you than does the Complainants' Exhibit Gardner Chair Seat, which has the circular concavity.

A. It does.

X Q. 38. What, if any, would be the difference, in effect, between the Exhibit Gardner Yellow Chair and the bent chair seat invented by you in respect to the concavity?

A. This specimen you call the yellow chair is formed of three different thicknesses of veneer pressed together in a mould or form; the glue in a liquid form, the whole forming one solid mass, and allowed to dry

123 in that form, produces a seat more likely to retain its form than a chair seat bent in a similar process from one thickness of wood or veneer.

X Q. 39. Is the only difference you can point out one of material—that is, your seat was a single piece of wood, and these exhibits are several layers of veneer, with the grains crossing? I still leave out of view the perforations.

A. Well, it is very plain, to my mind, that three thin veneers or pieces of wood pressed together and allowed to dry on the desired form will produce a much stiffer or more lasting form than the same form produced from one thickness of wood, or the same kind of wood used in the three thicknesses.

X Q. 40. Is that the only difference you can point out?

A. The Gardner seat, formed as it is of three different thicknesses of veneer, in connection with the glue used on their surface, forms a seat not easily broken or straightened, whereas a chair seat made from simply one thickness has not the advantage of the three-ply veneer seat locked together with glue and the grain of the wood of the three thicknesses running in opposite directions.

X Q. 41. This all relates, as I understand it, to the strength of the chair seat; is there any other difference that you can point out between your bent chair seat and the Gardner chair seat? I still refer to the concavity.

A. The descriptions that I have given cover substantially the difference between the two seats.

X Q. 42. Please read the Def'ts' Exhibit Mayo Reissue Patent No. 3089, and state if the material therein described, consisting of three or more layers of veneer, with their grains crossing, glued together, had been used by you in 1865 or 1866 in making your bent chair seat, what, if any, difference would exist between the Gardner seat and your bent seat in relation to concavity.

124 (Objected to: first, not alluded to in the direct; second, because containing a misstatement of what the Mayo reissue patent describes; third, irrelevant, incompetent, and immaterial.)

A. This has no reference, I understand, to my invention; this consits of a plurality of thicknesses; it dosen't limit the numbers; I should judge that the same difference existed between this invention and mine that exists between Gardner and mine in respect to the number of layers used. Well, as I understand it, this process is similar to Gardner's, and the difference between Gardner's and my own I have substantially described. I perceive the difference now in the materials used; the different thicknesses of wood in the Mayo patent are not from one piece of wood or veneer, but composed of narrow pieces of wood or veneer, with the grain of the wood so crossed so that the joints shall be broken by alternate layers; in other respects, when glued together or formed, it resembles the Gardner process.

X Q. 43. Suppose you had used, in making your bent seat, the same kind of material as is used in the Gardner seat, made in substantially the same way, what, if any, difference would exist between the Gardner seat and your seat in relation to the concavity?

A. The process of making my seat and the Gardner seat are entirely different; whereas, the single sheet of wood used in my seat, irrespective of kind or quality, would have to be steamed to produce that flexible state to allow it to be put into the desired form—the concave form—whereas the Gardner seat is composed of three thicknesses of wood which are entirely dry, save the moisture which the glue gives it when pressed into form.

X Q. 44. My question relates to the substitution by you in making your bent seat of three thicknesses of veneer, with their grains crossing, glued together, instead of a single piece of wood; what difference,

125 if any, would there exist between your seat and the Gardner seat in relation to concavity in the seat?

A. There would be substantially no difference; I refer to the Exhibit Gardner Yellow Chair?

X Q. 45. Look at the exhibit of chair seat marked "Complainants'

Exhibit Pratt Seat," and state if that exhibit is a true representation of your invention of the slat seat.

A. It is not; my patent consisted of one thickness of veneer glued on the top surface of the chair-seat frame, covering the entire surface; in other respects this seat represents substantially my invention.

Redirect:

X Q. 46. Look at the drawing attached to the Def'ts' Exhibit Pratt Patent, and state how the Complainants' Exhibit Pratt Seat corresponds with that drawing.

A. It is substantially the same thing, with the exception of the veneer covering the entire top surface of the frame instead of being let in, as it is in the seat marked "Compl'ts' Exhibit Pratt Seat."

HENRY T. PRATT.

Subscribed and sworn to before me this 13th day of September, 1881.

JOHN DELAHUNTY,
Notary Public N. Y. City and Co.

126 NEW YORK, *September* 2, 1881.

Met pursuant to adjournment.

Present: Counsel as before.

ADOLPHUS HENKEL, a witness called on behalf of the complainants, having been duly cautioned and sworn, and examined by Mr. O'REILLY, testified as follows:

Q. 1. What is your name, age, residence, and occupation?

A. My name is Adolphus Henkel; I am 45 years of age; I live in New York City; I am a manufacturer of cabinet work, general woodwork, and a joiner; I am superintendent of the chair-seat manufactory of the complainants, Gardner & Co.

Q. 2. Please state what experience you have had, if any, in cabinet making and in the manufacture of furniture, including chairs and chair seats, giving the details of the concerns and places.

A. I commenced apprenticeship with Joseph M. Ludsburg of Baltimore; I worked for B. Weber, of New York; I was in business for myself in New York; the first place mentioned was a general shop; we did cabinet work and everything; in the second place we made chairs and parlor furniture exclusively; in the third place mentioned we made cabinet work, chairs, and carving; after that I was with Phelan & Collender, manufacturers of billiard tables; then with the Mitchell Furniture Co. of St. Louis; they manufactured everything belonging to the cabinet business; after that I worked for F. W. Johnson & Son, Quincy, Illinois, who made general cabinet work; after that, with the Hale & Kilburn Manufacturing Co., same business; then with Gardner & Co., where I am now; I commenced with Gardner & Co. March, 1877; cabinet work includes chairs; I commenced my apprenticeship in the year 1858.

127 Q. 3. Have you taken out any patents for inventions of your own?

A. I have.

Q. 4. Specify the particulars.

A. I prepared a machine for sawing wood and ornaments for furniture, also for folding bedstead.

Q. 5. Have you read and do you understand the contents of the following letters patent: Def'ts' Exhibit Bellows Patent, Def'ts' Exhibit Pratt Patent, Def'ts' Exhibit Bramhill Patent, Def'ts' Exhibit Farmer Patent, and Def'ts' Exhibit Cochran Patent.

A. I have read and understand them.

Q. 6. Please look at the article now shown you and marked "Complainants' Exhibit Bellows Seat," and state what it is?

A. It is a chair seat constructed under my supervision, in accordance with the specification and drawing of said Exhibit Bellows Patent.

(The said chair seat is put in evidence by complainants' counsel and marked "Complainants' Exhibit Bellows Seat, J. D., Notary Public.")

Q. 7. What can you say as to the utility of the chair seat described in said Bellows Patent?

(Objected to, as the witness is incompetent to express such an opinion, is not called as an expert, and has not qualified himself as such.)

A. I find that in order to make the same it is necessary to steam the wood, and in pressing the same into the form a great number of them will break; that is one defect. In order to apply it to a chair of the shapes now made, in order to fasten it down on the surface of the frame with nails or screws, the wood will check or split, from the fact that the grain of the wood running in one direction, thus confined by nails and screws,
128 will not permit the wood to work its natural way, thus causing the seat to split, as mentioned before; besides that, the seat being a half inch thick or more, in cutting it to the shape to suit the form of the chair frame, makes it very uncomfortable, and I think it is a seat not adapted as a marketable article.

(Answer objected to, as the construction of the seat, being in accordance with the patent, is a question for the court to pass upon.)

Q. 8. State whether or not the said Bellows seat is adapted to be used for reseating chairs.

A. I should say not, because the seat must be cut to suit the shape of the chair to be reseated; being a half inch thick leaves a thick edge, making it uncomfortable. Besides that, in order to fasten it to the frame it requires a mechanic or skilled labor to do so, and, owing to the nature of the process by which it is made, a great number of them twist and curl so that they cannot be retained on the frame by nails or screws.

Q. 9. Please state the process which would have to be followed in reseating a chair with the Bellows seat.

(Same objection as to Q. 7.)

A. You would have to make a chair to suit the seat.

Q. 10. I mean what operations would have to be followed in attaching a Bellows seat to an old chair?

A. You would have to resteam the seat, bring the edges down, which would affect the concave and make it comparatively a flat board again.

Q. 11. What, if any, shrinkage would arise after the Bellows seat was so applied?

(Same objection as to Q. 7.)

129 A. From the nature of the material of the wood, by steaming it and pressing it in a caul would contract the fibres of the wood, and after the air got at it again it will swell it, and consequently check.

Q. 12. Would or not shrinkage arise after the Bellows seat had been attached to the chair frame?

(Same objection as to Q. 7.)

A. It would, more or less, same as in any piece of wood confined by nails or screws and exposed to the atmosphere, heat, or dampness.

Q. 13. What would be the effect of this shrinkage on the nails?

A. It would have a tendency to draw them out.

Q. 14. Suppose that the Bellows seat were perforated, what would follow?

(Same objection as to Q. 7.)

A. It would be likely to split from hole to hole.

Q. 15. Please give the reason for this.

(Same objection as to Q. 7.)

A. When the fibres are relieved by the perforation, the wood has a tendency to contract or expand, owing to the dampness or heat of the atmosphere.

Q. 16. Please look at the article now shown you, marked "Complainants' Exhibit Pratt Seat," and state what it is.

A. A slat seat. It is the seat known as the "Pratt seat." I mean I made it according to the specifications, as read and understood by me, of the Exhibit Pratt Patent.

(The said chair seat last referred to by the witness is put in evidence by complainants' counsel, and the same is marked "Complainants' Exhibit Pratt Seat, J. D., Notary Public.")

130 Q. 17. Please state what would be the utility of a chair seat like the Pratt seat.

A. I think it wouldn't answer the purpose it was intended for.

Q. 18. Why not?

(Same objection as to Q 7.)

A. Because the manner in which it is constructed would cause it to break in a very short time.

Q. 19. Why would it break in a short time?

A. Because the material being very thin, and that portion holding the strips together, would cause the slats to part, and consequently break.

Q. 20. What effect would the Pratt seat have upon the clothes of the person sitting on it?

(Same objection as to Q. 7.)

A. You cannot regulate the exact amount of slats and the proportion in which one will give to the pressure of the body, thus allowing either one or the other to lap beyond the other, and they would be likely to catch the clothing, and on suddenly arising from the chair it would tear the clothing.

Q. 21. What would follow from the variable grain of the wood of the slats of the Pratt seat?

(Same objection.)

A. By that I understand cross-grained wood, which nearly all wood is more or less, and if any of the slats should be affected in this manner it would cause them to break very easily.

Q. 22. In your opinion, as one skilled in the art, please state which would be the more durable, a cane seat or the Pratt seat.

(Objected to as immaterial.)

131 A. I would say a cane seat.

Q. 23. Please look at the article now shown you, and state how it corresponds with or differs from the seat described in the said Defendants' Exhibit Farmer Patent.

(Same objection as to Q. 7.)

A. It is made the same as described in the patent as read by me.

(The seat just referred to by the witness is put in evidence by complainants' counsel, and is marked "Complainants' Exhibit Farmer Seat, J. D., Notary Public.")

Q. 24. What can you say as to the utility of the said seat described in the Farmer patent?

(Same objection as to Q. 7.)

A. I say it is not adapted to the purpose intended for.

Q. 25. Why not?

(Same objection.)

A. The material is of such a nature it must be soaked in hot water before you can attach it to a chair frame by nails, screws, or otherwise.

Q. 26. What results will follow after attaching the Farmer seat to a chair frame?

(Same objection.)

A. The material will shrink and curl up, thus loosening the nails or screws and giving the chair an unfinished appearance.

132 Q. 27. Please state what, if anything, you know concerning the occurrence of those facts on the seat Complainants' Exhibit Farmer Seat.

(Same objection.)

A. By having had this one made under my supervision, and the same having receded from the frame to which it was attached about a quarter of an inch all around in the course of about two weeks. This seat is made of rawhide.

Q. 28. Please state whether or not the Farmer seat could be sold separate from the chair practically.

(Objected to as incompetent.)

A. I believe not, because in order to make the seat it is necessary to soak the same, and after it is completed and the moisture has evaporated it will curl up and require the original process in order to attach it to the chair frame. Besides that in perforating or embossing the same the edges of the perforations will swell up, making a sharp edge, and thereby making an uncomfortable seat, liable to destroy the clothing.

Q. 29. What class of labor would be required in reseating a chair with the Farmer seat?

(Same objection as to Q. 7.)

A. My experience has been that it requires a mechanical judgment to apply it.

Q. 30. What is your opinion as to whether the Farmer seat would be accepted by the public?

(Same objection, and as incompetent and inadmissible.)

A. I should say that they could not be sold in any shape or manner.

Q. 31. What would be the cost of the Farmer seat in comparison with the cost of the Gardner seat, such as is shown by Complainants' Exhibit Gardner Chair Seat?

133 A. It would cost about five or six times as much.

Q. 32. Which is the better chair seat, the cane seat or the Farmer seat?

(Same objection as to Q. 7, and as incompetent, inadmissible, and immaterial.)

A. I should say the cane seat for the reasons previously stated.

Q. 33. Look at the article now shown you, and state how it corresponds with or differs from the chair seat described in the said Def'ts' Exhibit Cochran Patent.

(Same objection as to Q. 7.)

A. That is a seat made under my supervision according to the patent, the said Cochran patent, as read and understood by me.

(The seat last referred to by the witness is put in evidence by complainants' counsel, and the same is marked "Complainants' Exhibit Cochran Seat, J. D., Notary Public.")

Q. 34. What would be the expense of making a seat like the Cochran?

A. About 35 to 80 cents.

Q. 35. What happens when you nail the Cochran seat or attach it by means of screws to the chair seat?

(Same objection as to Q. 7.)

A. I find it cracks the seat, and it cannot be fastened on by glue, because it will not bind with the rubber.

Q. 36. What would happen to the Cochran seat when used for a short time?

(Same objection as to Q. 7.)

134 A. It would part from the frame by the weight of the body causing the rubber to spring, and thereby loosening the nails or screws, as well as causing the rubber to break, and the heat of the body would cause the rubber to emit an offensive odor.

Q. 37. In attaching the seat on Complainants' Exhibit Cochran Seat, state what breakage occurred.

A. On driving the nail home it caused the corners of the material to crack and split.

Q. 38. Suppose you had driven the nails in the other two corners home, what would have followed?

(Same objection as to Q. 7.)

A. I think the same effect would have followed as in the case of the other two nails.

Q. 39. Would the Cochran seat be an easy seat, even if it did not break or split. If not, why not?

A. I should say not, being flat and rigid, and by nature of its highly polished surface slippery and uncomfortable.

Q. 40. Suppose the Cochran seat were made of gutta-percha, what would be the cost of the seat?

A. According to the prices given to me by the wholesale dealers or manufacturers, it would be about $1.50 apiece.

Q. 41. Could a Cochran gutta-percha seat be attached to a chair frame by nails, screws, or glue?

(Same objection as to Q. 7, and as incompetent and inadmissible.)

A. According to my opinion, I think it is impossible; the material being pliable, it would cause the edges to tear from the nail or screw by the weight of the body; glue won't connect with gutta-percha.

Q. 42. How would the Cochran gutta-percha seat have to be practically applied to a seat frame?

(Same objection as to Q. 7, and as incompetent and inadmissible.)

135 A. In my judgment, it would require a supplementary frame,

over which the material must be stretched and fastened, and the supplementary frame fitted into the chair frame proper and retained there by screws or nails.

Q. 43. Please state whether or not the Cochran gutta-percha seat could be practically employed for reseating chairs.

(Same objection as to Q. 7.)

A. I believe it it would be impossible to use it for that purpose, for the reasons already stated.

Q. 44. What other difficulty, if any, would arise in the use of the Cochran gutta-percha seat?

A. The material being pliable, the weight of the body sitting on the same would cause it to sag, and permitting the edge of the chair frame to form a sharp edge, thus making the same very uncomfortable to sit on.

Q. 45. Would or not the perforations in the Cochran gutta-percha seat cause the seat to sag from sitting thereon?

A. It would cause it to sag more than it would if it were not perforated.

Q. 46. Would or not a cane seat be cheaper and better than either the Cochran rubber or gutta-percha seat?

A. According to my experience, I should say it would.

Q. 47. Look at the article now shown you, and state how it corresponds to or differs from the said Exhibit Bramhill patent.

(Same objection as to Q. 7.)

A. This seat was made under my supervision according to the said Bramhill patent, as read and understood by me.

136 (The seat last referred to by the witness is put in evidence by complainants' counsel, and the same is marked "Complainants' Exhibit Bramhill Seat, J. D., Notary Public.")

Q. 47. What would be the cost of the material forming the Bramhill seat; I mean exclusive of the framing?

A. Thirty cents apiece.

Q. 48. How would the application of the Bramhill rubber seat compare in cost with that of the application of cane to a frame?

A. It would cost more than cane.

Q. 49. What would have to be done in applying the Bramhill rubber to the seat frame?

(Same objection as to Q. 7.)

A. It is virtually the same application as the Chochran gutta-percha.

Q. 50. Is this application that would be necessary in applying the Bramhill rubber to a seat frame shown in Complainants' Exhixit Bramhill Seat?

(Objected to as incompetent and inadmissible.)

A. Yes, sir.

Q. 51. Could or not the Bramhill rubber and supplemental frame be used for reseating chairs?

(Same objection.)

A. It could not, for the same reasons as stated in regard to the Cochran gutta-percha seat.

Q. 52. What can you say as to the durability and efficiency of the Bramhill seat?

A. It has the very same effect as the gutta-percha seat; it makes no difference where the edges, it will sag down to it.

Q. 53. What can you say as to unpleasant odors arising from the Cochran gutta-percha seat and the Bramhill seat?

137 A. The general effect of the heat on the rubber in sitting on same for any length of time is to create a disagreeable odor; as to gutta-percha, I don't know.

Further examination of this witness is adjourned to a time to be agreed on.

Further examination of other witnesses adjourned until to-morrow, September 3d, at 11 a. m.

NEW YORK, *September* 13, 1881.

Met pursuant to adjournment.

Present: Counsel as before.

Direct examination of the witness, Adolphus Henkel, resumed by Mr. O'REILLY:

Q. 54. Look at the article now shown you and state what you know about it.

A. This is a Bellows seat, made according to the Bellows patent, as read and understood by me. It consists of a board about a half inch thick soaked in hot water or steamed, then placed in a caul of a perfect circular concave and pressed to the shape of the caul, remaining in that position for about fifteen hours, then removed and nailed on to a seat. In doing this it became necessary to force the edges down, which caused the seat to split. Besides this, the concave returned almost to a flat surface. Besides this, in nailing the seat on to retain the same in its position, it checked or cracked the seat in several places where the nails were driven, owing to the fact that the grain of the wood runs in one direction. As near as I can tell the concave returned to the flat surface within twenty-four hours.

138 (Seat last referred to by the witness put in evidence by complainants' counsel, and marked "Complainants' Exhibit Bellows No. 2, J. D., Notary Public.")

Q. 55. Look at the article now shown you and state what you know about it.

A. This is a seat made in the same manner as Complainants' Exhibit Bellows No. 2. But instead of being fastened to the seat frame by nails it was attached by glue. The effect was virtually the same as with the previous seat, Bellows No. 2, with the exception of the remarks applied to the effect produced by nailing the same.

(Seat last referred to by the wituess put in evidence by complainants' counsel, and marked "Complainants' Exhibit Bellows No. 3, J. D., Notary Public.")

Q. 56. Look at the article now shown you and state what you know about it.

A. It is a seat the same as the one marked Bellows No. 3, applied like No. 2, with the exception that it is perforated. The grain of the wood running in one direction is open to the atmosphere by the perforations which will absorb moisture, and more or less cause the seat to check or crack from perforation to perforation whenever these happen to come on the line with the grain of the wood.

(Seat last referred to by the witness put in evidence by complainants'

counsel, and marked "Complainants' Exhibit Bellows No. 4, J. D., Notary Public.")

Q. 57. Please state which would be the better seat, a Bellows seat with perforations or a Bellows seat without perforations?

139 (Objected to as incompetent, the witness not called as an expert, nor shown to be competent as such, and not rebutting evidence.)

A. I should say a Bellows seat with perforations.

Q. 58. Why?

A. On account of giving the body ventilation.

Q. 59. Would or not the perforations render the seat less durable than without them?

(Same objection as to Q. No. 57.)

A. It would, for the reasons previously stated.

Q. 60. Have you read and do you understand Defendants' Exhibit Mayo Reissue?

(Same objection as to Q. 57, and inadmissible.)

A. I have and I do.

Q. 61. Please explain how you in the year 1868 would have understood from that patent how the plurality of veneers were constructed?

(Same objection.)

A. I would have understood in 1868 that the party would take pieces of veneer or scale-board of various sizes, join them, and by applying glue or some other cement to them place them in such a manner that the joints of each separate sheet were placed so that they would overlap each other, thereby avoiding that one joint would come directly opposite the other.

Q. 62. Please produce any illustration you may have of the construction referred to in your last answer.

A. I here produce pieces of veneer constructed in that manner.

(The pieces of veneer referred to by the witness put in evidence by complainants' counsel, and marked respectively "Complainants' Exhibits Mayo No. 1," and "Complainants' Exhibit Mayo No. 2, J. D., Notary Public.")

140 Q. 63. How long have you known the Gardner seat?

A. I have known of it about six years and a half, as near as I can recollect.

Adjourned to Friday, Sept. 16, 1881, at 11 o'clock a. m.

NEW YORK, *September* 27, 1881.

Met pursuant to adjournment.

Present: Counsel for the respective parties as before.

Direct examination of the witness Adolph Henkel resumed.

Q. 64. What is the seat Complainants' Exhibit Bramhill Seat composed of?

A. Rubber cloth.

Q. 65. What can you say would be the efficiency of a Bramhill seat, if the seat portion consisted of "soft, vulcanized, sheet India-rubber," as mentioned in the Bramhill patent?

A. It would sag down and tear, because it has nothing to bind it, and would not be as good even as if made of India-rubber cloth.

Q. 66. If the Bramhill seat proper were made of "soft, vulcanized sheet India-rubber," where would it tear, as you have stated?

A. On that portion of the frame where the most tension would be when sat upon, or the inner edge of the seat frame.

Q. 67. Look at Complainants' Exhibit Tice, and state whether or not such a seat could be used for reseating purposes.

A. I should think not; in the first place it would require tinners' shears to cut the same to the required shape, and especial machinery for binding and protecting the outer edges.

141 Q. 68. What do you mean when you say that Complainants' Exhibit Tice could not be used for reseating purposes, in your opinion?

A. By reseating I mean replacing a new seat to an old chair, the shapes of which vary so much that in nearly every case it is enough difference in the outlines of the seat frame that it would be next to impossible for any one to carry stock enough to supply the different shapes.

Q. 69. Please state what would have to be done to apply a perforated sheet metal seat like Complainants' Exhibit Tice to a seat frame?

A. It would have to be cut to the shape required by tinners' shears, and bound with tin applied by a machine specially made for that purpose.

Q. 70. What class of labor would be required to perform this work?

A. It would require skilled labor.

Q. 71. Would or not the binding on Complainants' Exhibit Tice be absolutely necessary to apply the seat to a chair frame?

A. It would, for the simple reason that the edge otherwise would be ragged and show sharp edges, to which the clothing would fasten itself and thereby cause it to be torn.

Q. 72. What kind of a seat would Complainants' Exhibit Tice be?

A. A cold and uncomfortable seat.

Q. 73. Are you acquainted with the Gardner seat, a specimen of which is marked "Complainants' Exhibit Gardner Chair Seat?"

A. I am.

Q. 74. How long have you been acquainted with such seat?

A. About six or seven years, as near as I can remember.

Q. 75. Please state what you consider to be the excellencies if any of said Gardner seat.

142 A. I believe it to be a cheap seat, good looking seat, strong seat, and a comfortable seat; easily applied to any chair, whatever shape it may be, and by any one, without any mechanical skill; light, durable, and will retain its shape in nearly any climate.

Q. 76. Please state what was the first seat that could be practically applied to a seat frame by unskilled labor.

A. The said Gardner seat.

Q. 77. What was the first seat that was practically adapted to variable chair-seat frames?

A. The said Gardner seat.

Q. 78. What are the advantages of this feature?

A. It is so constructed that you can cut it to any chair seat.

Q. 79. You say that the Gardner seat was the first one that could be applied to chair-seat frames of varying forms. What advantage is there in having such a seat?

A. The seats known to me previous to that were generally made of cane, woven into the seat frame, or upolstered seats. Caning seats or up-

holstering is a regular trade, and therefore necessary to always have the necessary help to fill orders on short notice or otherwise.

Q. 80. About how many different chair-seat frames are made?

A. In my judgment there are four or five hundred different kinds or shapes.

Q. 81. Is or not the Gardner seat adapted to them?

A. It is.

Q. 82. What was the first chair seat, to your knowledge, that was made and sold separate from a chair?

A. The said Gardner seat.

Q. 83. What, to your knowledge, was the first practical substitute for a cane seat?

A. The Gardner seat.

Q. 84. What was the first seat, to your knowledge, that could be employed for reseating purposes without the use of skilled labor?

A. The Gardner seat.

Q. 85. What do you know of a desire having been felt in the trade before the introduction of the Gardner seat for a substitute for cane seats?

143 A. The difficulty in obtaining labor, especially in cases where it was required to fill large orders on short notice, in which case the help would generally take the advantage of demanding higher prices.

Q. 86. Please state what, if any, experiment you made before the introduction of the Gardner seat to get a substitute for cane seats. State the circumstances.

A. I made several experiments while superintendent of the Mitchell Furniture Co., of St. Louis—that was in or about 1871 or 1872, about that time—by using carpet and straw matting, gluing wood or canvas on the bottom, in order that the seat would become sufficiently rigid and strong and retain its shape. I found, after using them for a short time, they would sag down at the inner edge of the seat frame and make them very uncomfortable; also liable to part or break where the material came in contact with the inside edge of the seat frame. I therefore abandoned the idea of making them a useful and successful substitute for cane.

Q. 87. Were or not those the first experiments you had made in that direction?

A. No, they were not. I made some on a smaller scale previous to that in the city of Baltimore, in or about the year 1866, with substantially the same result as with those in St. Louis.

Q. 88. Why did you make these experiments?

A. I had in view to find a suitable substitute and better-looking and more comfortable seat than cane.

Q. 89. Look at the two articles now shown you and state what they are.

A. One is called the "leather-board chair seat" and the other the "Harwood chair seat."

(The leather-board seat referred to by the witness is put in evidence by complainants' counsel, and the same is marked "Complainants' Exhibit Leather-board Seat, J. D., Notary Public."

And the Harwood chair seat referred to by the witness is put in evidence by complainants' counsel, and marked "Complainants' Exhibit Harwood Chair Seat, J. D., Notary Public.")

144 Witness continues: This Complainants' Exhibit Leather-board Seat, is called "leather-board seat" in the market; I call it pasteboard; Complainants' Exhibit Harwood Seat I understand to be pasteboard also, covered with thin paper, to imitate leather.

Q. 90. Have or not these pasteboard seats just referred to first appeared on the market since the introduction of the Gardner seat?

A. I have never seen any of them previous to the Gardner seat.

Q. 91. What can you say as to the utility of these pasteboard seats?

A. I have found them to wear but a very short time, from the fact that when they are attached to the chair frame the weight of the body by sitting on them will cause them to press against the inner frame, and they will sag and tear on the line where the material comes in contact with the inner edge of the seat frame.

Q. 92. Are seats like Complainants' Exhibit Leather-board Seat now on the market?

A. I haven't seen any used or heard of any being sold for the past two years.

Q. 93. Which is the cheaper seat in point of cost, the Gardner seat or either of the pasteboard seats?

A. I should say the Gardner seat, because the material used in the Gardner seat is cheaper than pasteboard.

Q. 94. Look at the chair back of Def'ts' Exhibit Baillie Chair, and state what the spaces therein are known as in the art?

A. They are known as fret work.

Q. What is the object of having them?

A. It is simply for ornamentation.

Q. 96. Would or not such fret work do in chair seats?

A. I should think not, for the simple reason that it is not sufficiently strong to bear the weight of a person sitting on it.

Adjourned to Tuesday, Sept. 28, 1881, at 10 o'clock a. m.

145 NEW YORK, *September* 28, 1881.

Met pursuant to adjournment.

Present: Counsel as before.

The witness, Adolph Henkle, was then cross-examined by defendants' counsel, and further testified as follows:

By Mr. FOSTER:

X Q. 97. Describe in detail the manufacture of the Gardner seat.

A. In the first place we take veneers, cut about twenty to the inch of any desired size, pass the surface veneer through a sanding machine in order to give it a smooth surface; after this one of the veneers, which is to be placed in the centre of the seat—the seat consisting of three veneers, the grain of the two outside veneers running in one direction, and the grain of the centre veneer in the opposite direction—the centre veneer is passed between two rollers which revolve in a reservoir of hot glue; the veneers are then placed in position in the manner previously stated, and a package containing from twelve to twenty seats is placed in a caul made of wood or iron, the lower one being dished or concaved in the shape of a regular circle about five-eighths of an inch deep, the upper portion of the caul being convex in the same proportion. The caul is then placed in a

press, and with a lever or otherwise compressed in order to transfer the shape of the caul to the seats. They are then allowed to set or dry; after this removed from the caul and placed in racks and allowed to dry; after this they are cut to any desired shape or size, placed on a pattern or index containing the design which is desired to be perforated, and by means of a boring machine specially made for this purpose perforated in bundles of twelve or twenty.

X Q. 98. The machinery and the process for making these Gardner seats could be varied or changed from what you have just described, could it not?

146 A. If you refer to the machinery, I think not. They could be perforated in the ordinary manner by marking each perforation on the face of the seat, and then using an ordinary boring machine for perforating the same.

X Q. 99. What machinery do you refer to that could not be changed in making these Gardner seats? By changing the machinery I intended to be understood as substituting other appropriate machinery for that used by Gardner & Co., or doing by hand what they do by machinery.

A. I refer to the machine used for sanding or smdothing the veneers, also the machine in applying the glue to the same, and to the machine for perforating the same.

X Q. 100. Could you, or could you not, make the perforation in each seat by hand with an auger and bit instead of the perforating machine?

A. You could.

X Q. 101. Could you or could you not apply the glue to the middle layer of the veneer by dipping the same in a vessel containing glue, or apply it with a brush as well as by the machine having the rollers?

A. You could, but not near as well and as quick and as uniform.

X Q. 102. So far as the manufacture of the Gardner seat is concerned, possessing all the elements and characteristics thereof, could you or could you not make the said seat from beginning to end by hand without the use of machinery such as you have described?

A. It could be done, but it would be a very slow and tedious process.

X Q. 103. The use of machinery then in making the Gardner seat enables you to produce them cheaper than by hand labor, does it not?

A. It does.

X Q. 104. Look at the patent sued upon in this case, Def'ts' Exhibit Gardner Second Reissue, which is numbered 9094, and state if you have read and understood the same.

(Objected to as not alluded to in the direct examination.)

147 A. I have, and I do.

X Q. 105. Is there any reference in that patent to the use of any machinery, or to any particular method or process by which these Gardner seats shall be made?

(Objected to; first, not alluded to in the direct; second, immaterial and irrelevant; third, the patent speaks for itself in the particulars named.)

A. It alludes to the manner in which it is to be made, but speaks of no machinery by which it should be made.

X Q. 106. Please give the statement of the manner in which it should be made according to the patent.

(Objected to as not alluded to in the direct, and because the patent speaks for itself in the particular named.)

A. It should be made of veneers of wood, with the grains of one veneer crossing the other and glued together, and having a concave or dishing form, and perforated.

X Q. 107. How many layers of veneer does the Gardner patent call for?

(Objected to, as not alluded to in the direct, and because the patent speaks for itself in the particular named.)

A. It does not specify any particular number.

X Q. 108. What particular form or shape must the perforations be in, in order to conform to the Gardner patent?

(Last objection repeated.)

A. By perforations suitable and applicable to wood I understand a round hole made by a drill or bit.

X Q. 109. Would, in your judgment, the perforations in the Gardner patent be limited to a round hole?

(Objected, as lastly stated, and counsel further protests against this line of examination as unwarranted by the direct examination, and counsel gives notice that as to such question the witness will be regarded as that of the defendant.)

148 A. I see no other reasonable manner in perforating wood.

X Q. 110. Would this round hole have to be made in identically the manner alluded to by you, viz, by a drill or bit?

(Objected to as lastly stated, and same notice given.)

A. It might be punched out, but it would crush the fibre of the wood and break the seat in doing so.

X Q. 111. What effect has glue upon thin veneer, such as the middle veneer of the Gardner seat?

A. The moisture of the glue makes the same more pliable.

X Q. 112. When you put the glue upon the middle veneer of the Gardner seat, what, if any, effect does it have on the outside layers of veneers?

A. It would transfer part of the glue to the outer veneer.

X Q. 113. Would this glue also make the outside veneers pliable?

A. It would, more or less.

X Q. 114. In what condition must you have your veneers in order to apply a glue to them?

A. They must be thoroughly dry.

X Q. 115. Why must they be dry, and what would be the effect if they were not, when glue is applied to them?

A. The wood must be dry in order to combine the glue, otherwise the glue will chill and is liable to allow the outer veneer to part or peel off.

X Q. 116. Is the glue applied in a warm or cold condition?

A. It is applied in a warm condition.

X Q. 117. About what is the temperature of the glue when applied to these veneers?

A. That I have never tested.

X Q. 118. Is there a fire continually under the glue or around it; is it cool enough to insert your hand or finger in it; does the kettle or vessel containing the glue give off heat perceptibly as you pass by it? Give us some idea how warm the glue is.

(Objected to as irrelevant and immaterial and not alluded to in the direct.)

149 A. The glue is heated and kept warm by steam pipes, and sufficiently hot so that you cannot put your hand in it.

X Q. 119. The heat in this glue, then, affects the fibre of the wood in the veneers and makes them pliable, so that they can be readily pressed between the cauls into the concave-convex forms; is that true?

(Last objection repeated.)

A. It has the same effect as it would have if the glue was applied cold, as the moisture will lead to the same result.

X Q. 120. Is the proposition in my question No. 119 true or false?

(Same objection.)

A. I believe the heat alone would not cause the veneer to become pliable or flexible unless in connection with moisture.

X Q. 121. What would be the effect if you should press the veneer between the concave and convex cauls in the perfectly dry state in which they are previous to applying glue to them, either a single veneer or a number of veneers?

A. They would not retain the shape of the caul.

X Q. 122. How about splitting and cracking?

A. That depends entirely on the depth of the concave. If it is quite shallow it would not be likely to split; if it is deep, especially on the line of the concave, it would be likely to crush or fracture the fibre.

X Q. 123. What connection is there between the concave-convex form and the perforations in the Gardner seat; does the one in any way depend upon the other?

(Objected to as not alluded to in the direct.)

A. In my opinion the perforations in the concave-convex portion of the seat relieve the strain upon the fibres of the veneer, and, as the con-

150 cave-convex part forms an arch, thereby giving the seat more strength and assisting to retain its level shape, I therefore believe that the perforation adds to the strength.

X Q. 124. Would a Gardner chair seat without the perforations be a practical seat in your judgment?

A. It would not be near as good as with the perforations.

X Q. 125. Would it be as durable?

A. I think not.

X Q. 126. Can you point out any function performed by the concave-convex form of the seat which is in any way dependent upon the perforations?

A. I believe that by perforating the concave-convex part of the seat the glue is allowed to dry better, thereby making the same stronger and less liable to peel off, for the simple reason that glue which is not allowed to thoroughly dry will mildew and cause an imperfect joint.

X Q. 127. Do I understand you as meaning to say that perforations add strength to the concave-convex portion of the seat?

A. I do, for the following reason: it creates a number of isolated arches from one common centre.

X Q. 128. What function, to reverse the question, is performed by the perforations in any way dependent on the concave-convex form of the seat, or, in other words, what does the concave-convex form assist the perforations to do?

A. I believe that the perforations add strength to the concave-convex portion of the seat. I should say that the concave-convex form assist the perforations to appear more advantageously in ornamenting the same.

X Q. 129. Do I understand you that the perforations add or give more ornamentation to the Gardner chair seat, because of its concave form, than they would if it was not of a concave-convex form, and in this particular the concave-convex form assists the perforations to perform their function of ornamentation?

A. I do.

X Q. 130. Is there any other particular in which these two elements in the Gardner chair seat assist one another?

151 A. There is. The perforations cause the seat to be lighter.

X Q. 131. Is there anything else, or any other function performed by these two elements in the Gardner seat, or either of them?

A. There is; the concave-convex part makes the seat more comfortable, conforming to the shape of the body, permitting the same to rest easier and preventing the body from sliding from the chair; and the perforations permit of a free ventilation of the body while sitting on the seat for any length of time. I have covered so many advantages that I cannot remember any more just now.

X Q. 132. Look at the back of the Def'ts' Exhibit Baillie Chair. State if the strain upon the fibre is relieved therein and strength given to the concave-convex form by the spaces which you term fret work.

A. The spaces in the Baillie chair are so large that they occupy the greater portion of the back, leaving the veneer part so frail that it is likely to break.

X Q. 133. Of what size must the spaces in fret work be?

A. There is no particular size. It depends on the design entirely.

X Q. 134. Suppose that you had found by practical experience that the fret work in the Baillie back were too large to add strength, how much smaller would you make them, in order to give the additional strength which you say perforations give to that kind of work?

A. I do not believe that fret work comes under the head of perforations; but if I was considering the strength only of a back of that kind I should make the openings sufficiently small that they could be sawed out by the fret saw or jig saw generally used for that purpose.

X Q. 135. When you had made the openings in the Baillie back sufficiently small to add strength to the concave-convex form, would this concave-convex form receive additional strength from and because of these openings?

A. I do not believe that the openings made in the manner previously described could be made small enough to warrant this result.

152 X Q. 136. Look at the Def'ts' Exhibit Photograph Belter Model, and especially the second or last photograph therein, and state if you find openings or perforations in the lower part of the Belter back which would be small enough to warrant the result of adding strength to the concave-convex chair back.

(Objected to as incompetent, inasmuch as it does not appear what is the size of the object which the photograph purports to represent; therefore, the witness should not be asked the question.)

A. In my judgment, as near as I can tell by the photograph submitted

to me, I should think that the openings are sufficiently large and come under the head of "fretwork," which in every case is more frail than the solid wood.

X Q. 137. Look at the Baillie back again and examine nine holes or spaces in said back located as follows, and state if the spaces were that size, would they not, in your judgment, be small enough to add to the strength of the concave-convex form, to wit, the four diamond-shaped spaces in a cluster, immediately below where the tag is secured to the chair; a circular hole immediately below them; two other small spaces directly below the circular hole, and two spaces on the outer edge of the back, just above the first curve from the bottom.

(Objected to as irrelevant and immaterial.)

A. The peculiar shape of these openings, nearly all of which terminate in a sharp angle, occupying, as previously stated, more room than the wood or veneers separating the same; I therefore believe that it would rather add to the frailty of the chair back than to its strength.

X Q. 138. How much smaller than these nine holes or any of them would you make them in order to add to the strength of the concave-convex form?

A. In my experience these nine openings are about as small as they can be made with the facilities now used for that purpose.

153 X Q. 139. Then you would insist upon round holes, would you?

A. I would, because it is the simplest manner I know of.

X Q. 140. These spaces in the Baillie chair back would allow the glue to dry out, and thereby prevent the veneers from peeling off, and they would add to the ornamentation because of the concave form, and it would make the back lighter, and in other respects perform the same functions as the perforations in the Gardner chair seat, except to add strength to the concave-convex form, would they not?

A. I believe that the Baillie back, as shown me, would not answer for a seat in any shape or manner. The peculiar shape of the openings, which are made ornamental by the process of carving, and being of such dimensions that they occupy more space than the actual wood, the wood or veneer referred to would be affected entirely different from the manner in which the Gardner seat is made, as there is so much surface exposed that the process of drying would rather act to weaken the same than otherwise, and if used as a seat would have about the same effect as a grate bar for a boiler furnace.

X Q. 141. Your experience in relation to the Baillie chair back to be used as a seat is limited to this single exhibit in this case, is it not?

A. It is, only inasmuch that I have seen the effects on material constructed in the same manner.

X Q. 142. Did you see any of them break when used as a chair seat from want of strength?

(Objected to, as the witness has not said they were used as chair seats.)

A. I have never seen or heard of any one familiar with that kind of work who entertained the idea of using that material for such purpose, and I never seen one used for that purpose, or heard of one used for that purpose.

(Complainants' Exhibit Bellows Seat shown witness.)

154 X Q. 143. Did you make the concave-convex form on this ex-

hibit by the use of cauls similar to those you used in making the Gardner seat?

A. It was made under my supervision, and pressed in cauls the same as used with the Gradner seat.

X Q. 144. The convex-concave form then, on this Bellows exhibit, is the same as that on the Gardner seat, is it not?

A. It is not quite as deep, because the material will not permit of it being pressed in a caul as deep as that used for the Gardner seat, the wood being about half an inch thick.

X Q. 145. You could make the Gardner seats with the same cauls, havingthe same depth as those used in making this Bellows exhibit, could you not?

A. The Bellows exhibit was made in a regular Gardner caul.

X Q. 146. Three complainants' exhibits—Cochran Seat, Farmer Seat, and Bramhill Seat—shown witness. How did you make the perforations in those exhibits?

A. They were made on the same machine as used for the Gardner seat.

X Q. 147. Are the Complainants' Exhibits Cochran Seat and Farmer Seat adapted and applied to their respective chair-seat frames in the same manner as the Gardner seat?

A. Yes; they are.

X Q. 148. Do you know how long three or more layers of veneer have been in public and common use?

(Objected to as irrelevant.)

A. For any purpose? I know only of one case, when I used them myself for the construction of music desks for melodeons and pianos, about 1871 or 1872.

X Q. 149. (The patent of John H. Belter, dated August 19, 1856, No. 15552, is shown the witness, and he is requested to read the second paragraph on the last page of the specifications, and look at Fig. 6 of the drawings, commencing with the words, "I am aware," &c.) Have you any knowledge of furniture made and sold by said Belter under that patent?

155 A. I have no personal knowledge of any furniture made or sold by this party, but of a similar kind made by a party by the name of Kruskof & Schrieber, of the city of New York; but they did not call the material veneer, as it was over one-eighth of an inch in thickness, and came under the heading of boards.

(The patent just referred to is offered in evidence by defendant's counsel, and marked "Defendant's Exhibit Belter Patent of 1856, J. D., Notary Public."

ADOLPH HENKEL.

Subscribed and sworn to before me this 28th day of September, 1881.

JNO. DELAHUNTY,
Notary Public, N. Y. City and Co.

Adjourned to Thursday, Sept. 29, 1881, at 11 o'clock a. m.

NEW YORK, *Sept.* 29, 1881—11 a. m.

Present: Counsel for respective parties.

HENRY W. JOSLIN, a witness called in behalf of the complainants,

having been first duly cautioned and sworn, and examined by Mr. O'REILLY, of counsel for complainants, testified as follows:

Q. 1. What is your name, age, residence, and occupation?

A. Henry W. Joslin; I am 57 years of age; reside in Trenton, New Jersey; I am vice-president and superintendent of the Standard Rubber Company at that place.

Q. 2. State what acquaintance you have had with India rubber.

A. I have been engaged in all branches of it since I was 18 years old; I have been superintendent of the New England Car Spring Com-
156 pany; from there I went to Trenton and started a rubber shop for Garrett Schenck; I started the Elastic Cone Spring Co., which has changed its name to the New Jersey Car Spring and Rubber Company; then I went and started Hudson River Rubber Company up here at Hastings; I started a rubber company in Paterson, N. J., for Bramhill & St. Clair, afterwards moved to Brooklyn and called the United States Rubber Company; after that I started the Mercer Rubber Company, in Trenton, N. J., and then I went to Boston and started the Atlas Rubber Co.; I started the Standard Rubber Co., of Trenton, N. J.; these companies I started proved successful; I was called in by the organizers of these companies because of my knowledge of the rubber business.

Q. 3. Are you regarded as an expert in regard to India rubber and India-rubber fabrics?

A. I am; I am acquainted with them in all their branches.

Q. 4. Did you know William Bramhill, of the city of New York, to whom letters patent of the United States for a chair bottom and back, dated November 28, 1865, No. 51132, were granted?

A. I knew him; was well acquainted with him; he died, I think, about 1867. I was one of the pall-bearers.

Q. 5. State what, if anything, you know about his getting up a rubber-cloth chair seat.

A. All I know about it is, he told me he was going to get up one of those chair seats, and I thought I would explain to him what I thought of it, and I told him I didn't think they would answer, and I gave him my reasons. I didn't think they were strong enough, and they would be apt to give way around the edges of the seat frames, and by being a number of plys—one, two, or three plys—they would be apt to separate, one ply from the other; and then another objection I explained to him was, sulphur working out on the surface of the seat, which would be apt to soil clothes, &c., by sitting on it; another thing, it was not sufficiently strong, and by constantly sitting on it it would be apt to sag too far, and when it would sag so, it would stay there. I further told him that I did not think it was worth a patent; and then he went to work in my pres-
ence and tacked one on an old chair, and when we sat in it two or
157 three times it gave way across the middle, and tore around the tacks. I told him it was not worth spending the money on. This was, as near as I can recollect, either at the close of 1865 or the beginning of 1866, when I was connected with him in the rubber business in Brooklyn.

Q. 6. How is rubber cloth made?

A. We take a piece of cloth and friction it with a set of calenders, and

after that we put it through a set of calenders and run a coat of gum on each side.

Q. 7. Look at the Complainants' Exhibit Bramhill Seat and state what you can say would be the utility of a seat constructed and arranged as that is.

A. I think it would be worthless. I don't think there is any durability in it at all; it would be apt to separate from the different plys here; the sulphur would be apt to come out from the surface here and injure the clothes; and it would, by continually sitting on it, sag in. Another objection would be the smell of it, and it would be apt to curl at the edges of the inner frame. The weight of the person would be sustained on the inner edge of the frame.

Q. 8. Suppose soft vulcanized India rubber were substituted for the rubber cloth in the Complainants' Exhibit Bramhill Seat, what kind of a seat would it then be?

A. It would be so elastic that a man would fall down through it; it would give way under him entirely, and he would rest on the chair's seat frame; such a seat would be worse than useless.

Q. 9. What did Bramhill ever do with his seat?

A. I never knew him to do anything with it other than I have stated, and if he had I would have been likely to have known all about it, as we were very intimate up to his death.

Q. 10. Look at Complainants' Exhibit Cochran Seat and state what you can say as to the utility of such a chair seat.

A. I should say that this is affected by cold and heat; when it becomes cold it is brittle—it would be apt to break; when it is warm it becomes a little more pliable, and as soon as it would sag in any—it would be apt
158 to sag in too far with the heat of the person on it—and became cold again it would be apt to stay where it is. I don't think it is as good as Complainants' Exhibit Bramhill Seat. The flexible rubber would be more durable than hard rubber. The Cochran seat would be cracked by the nails and it is very liable to be broken by sitting on it. A glass seat would be as good as the Cochran seat; in my opinion, just as reliable.

Q. 11. Suppose you substituted in Complainants' Exhibit Cochran Seat gutta-percha for hard rubber, what can you say would be the utility of the same?

A. Just the same results would follow as with the hard rubber seat.

Cross-examination waived.

H. W. JOSLIN.

Subscribed and sworn to before me this 29th day of September, 1881.

JNO. DELAHUNTY,
Notary Public, N. Y. City and Co.

159 U. S. circuit court, southern district of New York. In equity.

WILLIAM GARDNER ET AL.
vs.
MARTIN HERZ.

It is hereby consented that the annexed affidavits of Frank J. Hessler, Horace G. Jacobs, and Ora L. Pitney, with the exhibits attached thereto,

be read and used on the part of the complainants on the final hearing of this cause, with the same effect as if said *affiants* were depositions duly taken in the cause, subject to cross-examination of the *affidavits*, and said exhibits duly proved.

Dated Oct. 3, 1881.

GIFFORD & GIFFORD,
Compl'ts' Sol'rs.
FOSTER, WENTWORTH & FOSTER,
Def'ts Sol'rs.

160 In the United States circuit court, southern district of New York.
In equity.

WILLIAM GARDNER, ET AL.
vs.
MARTIN HERZ.

UNITED STATES OF AMERICA,
District of Columbia, County of Washington, ss:

Frank J. Hessler, a citizen of Washington, District of Columbia, being duly sworn, deposes and says: I am foreman of the cabinet shop of the Treasury Department of the United States, which position I have held for, to wit, five years. It has been my duty as such foreman to prepare, under the supervision of the chief clerk of said Department, a descriptive list or schedule of certain supplies required for the use of said Department, which supplies are more fully set forth and described in a certain printed circular of the Treasury Department, dated June 18th, 1881, signed "J. T. Power, Chief Clerk," calling for "Proposals for miscellaneous articles," a copy of which circular is hereunto attached, marked "Exhibit P. J. F." The articles or items therein described as "Perforated seats," and "Perforated wood seats," refer to and designate the seats known as the "Gardner three-ply
161 concave perforated veneer seats," samples of which are kept at the Treasury Department, by which to issue orders or advertise for proposals for said seats.

These Gardner perforated seats are preferred to cane seats by the Treasury Department, because they are cheaper and more durable.

I have no interest, directly or indirectly, in the Gardner patent for perforated seats, nor in the above-entitled cause.

FRANK J. HESSLER.

Subscribed and sworn to before me this 28th day of September, 1881, the affiant being personally known to me.

I have no interest in the matter above referred to.

[L. S.] JOSEPH FORREST,
Notary Public.

162 EXHIBIT P. J. F.

TREASURY DEPARTMET,
Washington, June 18, 1881.

Bids will be received at the Treasury Department until twelve o'clock, noon, of Tuesday, July 5, 1881, for the articles within enumerated.

Samples of the goods required may be seen on application to the storekeeper, and bids must be submitted for the best quality of each article, and for the article bid upon independently of any other item named in the schedule herewith.

The Department reserves the right to reject any or all bids and to waive defects.

Bids should be marked "Proposals for miscellaneous articles," and addressed to the "Chief clerk of the Treasury Department.

J. T. POWER,
Chief Clerk.

163 WASHINGTON, D. C., *June 28th*, 1881.

The undersigned hereby agrees to furnish the articles below enumerated at the prices stated, or so much thereof as may be required, the same to be of the best quality and equal in all respects to the samples furnished at the department. Each article is offered independently of all others:

	Description of articles.	Price.	
		Dollars.	Cts.
1	gross varnish-brushes, ½ inch and 1 inch ..... per gross..		
¼	gross jewellers brushes, Glasgow ..... per gross..		
1	gross nail-brushes ..... per gross..		
12	dozen bristle counter-dusters ..... per dozen..		
25	dozen 4-string extra heavy brooms ..... per dozen..		
25	dozen whisk brooms ..... per dozen..		
2	gross iron cuspidors, porcelain-lined ..... per gross..		
1	dozen decorated china cuspidors ..... per dozen..		
6	dozen china soap-dishes ..... per dozen..		
3	dozen, each, ewers and basins, English stone-china ..... per dozen..		
3	dozen Sharp's claw hatchets ..... per dozen..		
3	dozen japan dust pans ..... per dozen..		
1	dozen gas torches ..... per dozen..		
3	dozen assorted awls ..... per dozen..		
1	dozen conductor's lanterns, brass ..... per dozen..		
100	gross parlor matches, small boxes, 100 in each box ..... per gross..		
100	boxes Proctor & Gamble's oleine soap ..... per pound..		
10	boxes white castile soap, Conti ..... per pound..		
3	gross Enoch Morgan & Sons' sapolio ..... per gross..		
1	gross White's cleansing powder ..... per gross..		
10	pounds pumice-stone ..... per pound..		
10	boxes Proctor & Gamble's adamantine candles No. 8 ..... per pound..		
3	barrels alcohol ..... per gallon..		
2	barrels astral oil ..... per gallon..		
1	barrel raw linseed oil ..... per gallon..		
	50 square yards linoleum, first quality ..... per square yard..		
164	50 pairs oil window-shades and fixtures ..... per pair..		
	6 dozen Argand chimneys ..... per dozen..		
3	dozen water-coolers, 2, 4, and 8 gallons ..... per dozen..		
2	dozen water-cooler stands ..... per dozen..		
1	dozen cocoa door-mats, 2 feet by 3 feet ..... per dozen..		
1	dozen cocoa door-mats, 3 feet by 6 feet ..... per dozen..		
3	dozen small Wilton foot-mats ..... per dozen..		
3	dozen Axminster desk-rugs ..... per dozen..		
2	dozen looking-glasses, 24 by 36 inches ..... per dozen..		
6	No. 2 Seth Thomas clocks (regulators) ..... each..		
8	dozen Continential spring-swivel chairs ..... per dozen..		
4	dozen Congressional spring swivel-chairs ..... per dozen..		
6	DOZEN OFFICE CHAIRS, PERFORATED SEATS ..... per dozen..		
12	dozen No. 16 feather dusters, full centre ..... per dozen..		

	Description of articles.	Price. Dollars.	Cts.
6	dozen toilet-brushes, as per sample ..... per dozen..		
6	dozen toilet-combs, as per sample ..... per dozen..		
3	dozen mane-brushes, as per sample ..... per dozen..		
2	dozen revolving-screw stools, as per sample ..... per dozen..		
2	dozen revolving, high-back screw stools, as per sample ..... per dozen..		
2½	dozen walnut step-ladders, 3 feet ..... per dozen..		
1	dozen walnut step-ladders, 5 feet ..... per dozen..		
5	boxes McKeone, Van Haagen & Co.'s carbolic scouring soap ..... per pound..		
1	barrel detergent ..... per pound..		
50	pounds washing-soda ..... per pound..		
2	gross 2-inch brass hooks and eyes, Sanders, Frary & Clark ..... per gross..		
1	dozen assorted sable striping-brushes ..... per dozen..		
4	gross brass cup-hooks, ⅝-inch, Sargent & Co.'s ..... per gross..		
12	dozen case-rod fastenings, as per sample ..... per dozen..		
6	dozen chair screw-boxes, as per sample ..... per dozen..		
6	dozen polished-brass flush-handles, No. 727, P. & F. Corbin ..... per dozen..		
6	dozen assorted holdfasts ..... per dozen..		
6	pieces linen duck, as per sample ..... per yard..		
	8 dozen brass flushings, P. & F. Corbin ..... per dozen..		
165	350 pounds Irish glue ..... per pound..		
	300 pounds orange gum shellac ..... per pound..		
100	pounds white curled hair ..... per pound..		
20	pounds red sienna (dry) ..... per pound..		
20	pounds Vandyke brown (dry) ..... per pound..		
6	pounds drop-black (J) in oil, 1-pound cans ..... per pound..		
6	pounds chrome yellow (dry) ..... per pound..		
20	pounds burnt umber (dry) ..... per pound..		
2	reams No. ½ flint papers ..... per ream..		
2	reams No. 1 flint papers ..... per ream..		
12	sets No. 188 cast-iron castors, Payson Manufacturing Co ..... per set..		
12	sets No. 184 cast-iron castors, Payson Manufacturing Co ..... per set..		
12	pairs 8½-inch cast-iron slip-hinges (R) ..... per pair..		
12	pairs 3½-inch cast-iron slip-hinges (S) ..... per pair..		
8	gross brass cupboard-hooks, 1¾-inch, No. 89, Sargent & Co ..... per gross..		
1	gross brass cupboard-hooks, 2-inch, No. 90, Sargent & Co ..... per gross..		
6	dozen bronze thumb-pieces, $\frac{5}{16}$-inch spindles, Russell & Irwin Manufacturing Co ..... per dozen..		
6	dozen maleable cast-iron chair-plates, as per sample ..... per dozen..		
20	pounds flat-headed wrought nails, assorted sizes ..... per pound..		
12	pairs 3-inch cast-iron slip-hinges (R) ..... per pair..		
12	pairs 3-inch cast-iron slip-hinges (S) ..... per pair..		
4	dozen wooden hand-screws, 9-inch jaw, ⅝-inch screw, Thomas's make ..... per dozen..		
4	dozen wooden hand-screws, 12-inch jaw, ¾-inch screw, Thomas's make ..... per dozen..		
2	gross 3½-inch wooden screws, No. 20 ..... per gross..		
4	gross 3-inch wooden screws, No. 20 ..... per gross..		
2	gross 3-inch round-head blued wood screws, No. 16 ..... per gross..		
100	feet 4-inch belting ..... per foot..		
110	feet 2½-inch belting ..... per foot..		
88	feet 2-inch belting ..... per foot..		
	64 feet 4½-inch belting ..... per foot..		
166	53 feet 3½-inch belting ..... per foot..		
	2 dozen scroll-saws, ¾ inch wide, 14 inches long ..... per dozen..		
1	dozen scroll-saws, ⅜-inch wide, 14 inches long ..... per dozen..		
1	screw-wrench, 12-inch		
4	sets, 16 feet, Daniel's planer knives ..... per set..		
6	DOZEN PERFORATED WOOD SEATS, 18 BY 18 INCHES ..... per dozen..		
4	DOZEN PERFORATED WOOD SEATS, 20 BY 20 INCHES ..... per dozen..		
4	DOZEN PERFORATED WOOD SEATS, 22 BY 22 INCHES ..... per dozen..		
18	pieces enamelled cloth, 52 inches wide (duck) ..... per yard..		
2	dozen iron drawer locks, No. 227, Gaylord Manufacturing Co ..... per dozen..		
4	gross screw eyes, No. 209, bright iron, Sanders, Frary & Clark ..... per gross..		
4	gross screw eyes, No. 108, bright iron, Sanders, Frary & Clark ..... per gross..		
4	pieces green merino, 42 inches wide, as per sample ..... per yard..		
4	pieces blue-black cloth, as per sample ..... per yard..		
12	hides red leather (Morocco No. 78) ..... per pound..		
10	pounds beeswax ..... per pound..		
3	dozen pair strap hinges ..... per dozen..		
4	gross $\frac{7}{8}$-inch mahogany escutcheons ..... per gross..		
1	gross ½-inch mahogany escutcheons ..... per gross..		
1	gross ½-inch walnut escutcheons ..... per gross..		
4	gross $\frac{7}{8}$-inch walnut escutcheons ..... per gross..		
4	gross 1-inch porcelain knobs ..... per gross..		
4	gross 1¼-inch porcelain knobs ..... per gross..		
4	dozen pairs 1-inch desk hinges ..... per dozen pairs..		
4	dozen pairs ¾-inch desk hinges ..... per dozen pairs..		
4	dozen pairs 1½-inch desk hinges ..... per dozen pairs..		
4	dozen pairs 1¾-inch desk hinges ..... per dozen pairs..		
48	sets brass-wheel castors, No 6, Toler's ..... per set..		
48	sets brass-wheel castors, No. 5 Toler's ..... per set..		
6	dozen bronze coat and hat hooks ..... per dozen..		

	Description of articles.	Price. Dollars.	Cts.
	12 kegs ten-penny nails, headed ..... per keg		
167	80 gross ¾-inch screws, No. 7 ..... per gross		
	80 gross ¾-inch screws, No. 8 ..... per gross		
	30 gross 1-inch screws, No. 5 ..... per gross		
	30 gross ⅞-inch screws, No. 4 ..... per gross		
	20 gross ⅞-inch screws, No. 5 ..... per gross		
	30 gross ⅞-inch screws, No. 5 ..... per gross		
	30 gross 1-inch screws, No. 5 ..... per gross		
	8 dozen pairs 2¾-inch brass hinges (B), P. & F. Corbin's make ... per dozen pairs		
	8 dozen pairs 2¾-inch brass hinges (M), P. & F. Corbin's make .. per dozen pairs		
	12 dozen pairs 2-inch brass hinges (B), P. & F. Corbin's make ..... per dozen pairs		
	12 dozen pairs 2-inch brass hinges (M), P. & F. Corbin's make .... per dozen pairs		
	12 dozen pairs 2-inch brass hinges (N), P. & F. Corbin's make ..... per dozen pairs		
	12 dozen pairs 1¾-inch brass hinges (B), P. & F. Corbin's make .... per dozen pairs		
	6 dozen pairs 1½-inch brass hinges (M), P. & F. Corbin's make .. per dozen pairs		
	12 dozen pairs 1½-inch brass hinges (B), P. & F. Corbin's make .... per dozen pairs		
	6 dozen pairs 1-inch brass hinges (B), P. & F. Corbin's make .... per dozen pairs		
	24 dozen pairs 2 by 2½-inch cast-brass hinges, straight holes, stout, with brass pin, P. & F. Corbin's make ..... per dozen		
	24 dozen pairs 2 by 2½-inch cast-brass hinges, straight holes, stout, with brass pin, P. & F. Corbin's make ..... per dozen		
	10 pounds white chalk ..... per pound		
	24 dozen 1¾ by 2-inch cast-brass hinges, stout, holes in a line, with brass pin, P. & F. Corbin's make ..... per dozen		
	12 dozen Japanned coat and hat hooks, No. 3½, Sargent & Co.'s ..... per dozen		
	6 DOZEN PERFORATED WOOD SEATS, 17 BY 17 INCHES, DARK ..... per dozen		
168	6 DOZEN PERFORATED WOOD SEATS, 17 BY 17 INCHES, LIGHT ..... per dozen		
	6 dozen papers 1¾-inch brads ..... per dozen		
	6 dozen papers 2-inch brads ..... per dozen		
	12 dozen drawer-locks, No. 260, Eagle Lock Co.'s make ..... per dozen		
	12 dozen cupboard-locks, No. 241, Eagle Lock Co.'s make ..... per dozen		
	12 dozen cupboard-locks (R), No. 272, Eagle Lock Co.'s make ..... per dozen		
	12 dozen cupboard-locks (S), No. 272, Eagle Lock Co.'s make ..... per dozen		
	24 boxes brass-head nails (F), No. 42 ..... per box		
	3 dozen pairs strap-hinges, 8-inch ..... per dozen pairs		
	3 dozen hinge-hasps, 8-inch ..... per dozen		
	3 dozen hinge-hasps, 6-inch ..... per dozen		
	3 dozen pairs strap-hinges, 6-inch ..... per dozen		
	6 dozen bronzed drawer-pulls, (iron) ..... per dozen		
	6 dozen cupboard-locks, No. 268, Eagle Lock Co ..... per dozen		
	6 dozen drawer-locks, No. 275, Eagle Lock Co ..... per dozen		
	6 dozen drawer-locks, No. 265, Eagle Lock Co ..... per dozen		
	12 dozen drawer-locks, No. 014, Eagle Lock Co ..... per dozen		
	3 dozen chest-locks, No. 258, Eagle Lock Co ..... per dozen		
	12 dozen brass-necked bolts, 3-inch ..... per dozen		
	12 dozen brass-necked bolts, 3½-inch ..... per dozen		
	6 dozen flat iron bolts, 4-inch ..... per dozen		
	6 dozen flat iron bolts, 6-inch ..... per dozen		
	6 dozen 8-inch mill saw-files, (bastard) ..... per dozen		
	6 dozen 6-inch taper saw-files ..... per dozen		
	6 dozen 4½-inch taper saw-files ..... per dozen		
	6 dozen 3½-inch taper saw-files ..... per dozen		
	6 dozen 3-inch taper saw-files ..... per dozen		
	6 dozen 2½-inch taper saw-files ..... per dozen		

(Sign)

169 United States circuit court, southern district of New York. In equity.

WM. GARDNER ET AL.
vs.
MARTIN HERZ.

UNITED STATES OF AMERICA,
District of Columbia, City of Washington, ss:

F. J. Hessler, a citizen of Washington City, District aforesaid, being duly sworn, deposes and says, this September 14, 1881: I am foreman of the cabinet shops of the United States Treasury Department. Referring

to an affidavit made by me of this date in the above-stated cause, and to a certain printed circular of the Treasury Department therein referred to, I now further state that the "perforated seats" and "perforated wood seats" mentioned and referred to in said affidavit and circular, and being the "Gardner three-ply concave perforated veneer seats," have been in use by the Treasury Department for years, and many times the quantity thereof designated in said circular have been purchased from time to time by said Department, proposals for said seats having been called for semi-annually, as needed, for the past three years. I have no interest in the
170 Gardner patent, nor in the above-entitled cause, directly or indirectly.

FRANK J. HESSLER.

Subscribed and sworn to before me this Sept. 28, 1881, the affiant being personally known to me.

I have no interest in the matters above mentioned, nor in said suit, &c.

[L. S.] JOSEPH FORREST,
Notary Public.

In the United States circuit court, southern district of New York. In equity.

WM. GARDNER ET AL.
vs.
MARTIN HERZ.

UNITED STATES OF AMERICA,
District of Columbia, City of Washington, ss:

Horace G. Jacobs, a resident of Washington City, District aforesaid, being duly sworn, deposes and says: I have occupied the position of chief clerk of the Supervising Architect's Office, Treasury Department of the United States, since 1875. Prior to July 1, 1877, the duty of supervising the furnishing of public buildings under the control of the Treasury Department, other than those in the District of Columbia, devolved
171 upon the supervising architect, and in pursuance of this duty he caused to be prepared printed specifications, setting forth in detail the modes of construction of such furniture, and the qualities of material and kind required, &c. Among such printed specifications were issued certain ones relating to arm, revolving, and office chairs, requiring the chair seats to be of "patent perforated wood," as shown by copies of such specifications hereunto attached, marked Exhibits "A," "B," and "C," respectively. These seats were specified as being understood to be more durable than cane seats. I have no knowledge of any other patent perforated wood seat than the "Gardner perforated veneer."

I have no interest in the Gardner patent perforated wood seat, nor in the above-entitled cause.

HORACE G. JACOBS.

Subscribed and sworn to before me this 28th day of September, the affiant being personally known to me.

I have no interest in the matters referred to.

[L. S.] JOSEPH FORREST,
Notary Public.

EXHIBIT A.

Specification of furniture.

TREASURY DEPARTMENT,
Office of Supervising Architect.

ARM CHAIR, AS PER DETAIL FURNITURE DRAWING, MARKED "NO. 13."

DESIGN AND SIZE.—This chair will be made in strict accordance with the design, and of the sizes marked thereon, viz: Seat 1 foot 11¾ inches by 1 foot 7⅝ inches by 1 foot 6½ inches high; height to top of back, 3 feet 3½ inches.

172 MATERIALS.—The materials used in the construction must be of the very best quality of their respective kinds. The lumber must be well seasoned and thoroughly dried, using artificial means if necessary, and must be free from all defects, such as sap, shakes, knots, &c. The hardware must be of the best manufacture.

WORKMANSHIP.—The workmanship must be of the very best description of cabinet, and not joiner's work.

CONSTRUCTION.—The whole of the framing must be mortised and tenoned in the most perfect manner. The tenons must all be as long as it is possible to make them—not less than one-third of the thickness of the material—all securely glued together.

The mouldings and ornaments must be neat, clean, and sharp, and in strict accordance with the design.

The front legs will be 3 inches extreme diameter, turned, with square top, having one corner rounded, as per design—all in one piece. The bottom rails will be ⅞ by 1½ inches, rounded on top. The front rail under seat will be 1¼ by 3 inches, with rosette ornament in centre and moulding at ends. The side rails under seat will be ⅞ by 2⅝ inches, with moulded ends; and the back rail will be ⅞ by 2 inches—all tenoned into tops of front legs and back legs. The rails of seat on the front and sides will be 3¼ by ⅞ inches, moulded on the front edge, and rebated to receive seat, properly mit'red at the angles with hard-wood dovetails ¼ inch thick on the underside, and neatly fitted to back legs.

The back rail will be 3 by ⅞ inches, rebated for seat, neatly joined and framed to side rails. The back legs will be in one piece, cut out of the solid, 1⅜ inches thick. The head rail will be ⅞ by 2¾ inches; bottom rail will be ⅞ by 3¼ inches; the uprights, ⅞ by 2½ inches; and the centre rosette, 1 by 6½ inches—all moulded, stop-chamfered, carved, and framed together as shown.

173 The turned knobs at head of back will be as shown, securely fixed in position.

The arms will be cut out of the solid of 1-inch and 1¼-inch stuff, as per design, securely framed together and to the side rails of seat and back. The whole will be of the best quality of black walnut. THE SEAT WILL BE OF PATENT PERFORATED BLACK WALNUT, set in the chair flush with the top rim, and properly sprigged thereto, the heads of the sprigs to be covered by best quality steel nails.

HARDWARE.—The front legs will be provided with English rubber-beaded castors.

FINISH.—The whole chair will be finished with four coats of shellac, rubbed down with pumice-stone and oil.

A. B. MULLETT,
Supervising Architect.

EXHIBIT B.

Specification of furniture.

TREASURY DEPARTMENT,
Office of Supervising Architect.

REVOLVING CHAIR, AS PER DETAIL FURNITURE DRAWING, MARKED "NO. 17."

DESIGN AND SIZE.—This chair will be made in strict accordance with the design, and of the sizes marked thereon, viz: Seat 1 foot 9 inches by 1 foot 6¾ inches, by 1 foot 5 inches high; height to top of back, 3 feet 2 inches.

MATERIALS.—The materials used in the construction must be of
174 the very best of their respective kinds. The lumber must be well seasoned and thoroughly dried, using artificial means if necessary, and must be free from all defects, such as sap, shakes, knots, &c. The hardware must be of the best manufacture.

WORKMANSHIP.—The workmanship must be of the very best description of cabinet, and not joiner's work.

CONSTRUCTION.—The whole of the framing must be mortised, and tenoned, and dowelled in the most perfect manner. The tenons must all be as long as it is possible to make them, and not less than one-third the thickness of the material, and the dowels must all be as large and as long as possible, all securely glued together. The mouldings and ornaments must be neat, clean, and sharp, and in strict accordance with the design. The legs of this chair must be cut out of the solid 1¾ inches thick, with the grain running as straight as possible, and the centre block must be 2½ by 2½ inches, all dowelled together and secured with a wrought-iron plate on underside, having arms not less than three inches long, and screwed to legs, as shown. The centre block will be hollowed to receive iron box of revolving screw, and the box will be securely fixed therein and screwed through top plate. The iron revolving frame of seat and screw of same will be of the best quality of iron used for the purpose, and of the best manufacture, securely screwed to seat, and painted three coats in oil. The chair seat will be framed, as shown, out of 1-inch stuff, having moulded edge all round, and rebated on the inside for the seat. A rail 1 inch high will be cut out of the solid and securely glued to the underside of same. THE SEAT WILL BE OF PATENT PERFORATED WOOD, set in the chair flush with the top rim and properly sprigged thereto, the heads of the sprigs to be covered by steel nails. The back and arms of the chair will be moulded and carved, as per detail, and framed together in the most secure manner, as shown. The whole chair will be constructed of the best quality black walnut.

HARDWARE.—Each leg will be provided with an English rub-
175 ber castor.

FINISH.—The whole chair will be finished with four coats of shellac, rubbed down with pumice-stone and oil.

A. B. MULLETT,
Supervising Architect.

EXHIBIT C.

Specification of furniture.

TREASURY DEPARTMENT,
Office of Supervising Architect.

OFFICE CHAIR, AS PER DETAIL FURNITURE DRAWING, MARKED "No. 14."

DESIGN AND SIZE.—This chair will be made in strict accordance with the design, and of the sizes marked thereon, viz, seat 1 foot 7 inches by 1 foot 5½ inches, by 1 foot 5⅞ inches high; height to top of back, 3 feet 1⅝ inches.

MATERIALS.—The materials used in the construction must be of the very best of their respective kinds. The lumber must be well seasoned and thoroughly dried, using artificial means if necessary, and must be free from all defects, such as sap, shakes, knots, &c. The hardware must be of the best manufacture.

WORKMANSHIP.—The workmanship must be of the very best description of cabinet, and not joiner's work.

CONSTRUCTION.—The whole of the framing must be mortised and tenoned in the most perfect manner. The tenons must all
176 be as long as it is possible to make them, not less than one-third of the thickness of the material, all securely glued together. The mouldings and ornaments must be neat, clean, and sharp, and in strict accordance with the design. The front legs will be 2¾ inches extreme diameter, turned, with square top, having one corner rounded as per design, all in one piece. The bottom rails will be ⅞ by 1⅜ inches, rounded on top. The front rail, under seat, will be 1¼ by 2¼ inches, with rosette ornament in centre and moulding at ends. The side rails, under seat, will be ⅞ by 2¼ inches, with moulded ends, and the back rail will be ⅞ by 1½ inches, all tenoned into tops of front legs and back legs. The rails of seat on the front and sides will be 3¼ by ⅞ inches, moulded on the front edge and rebated to receive seat, properly mitred at the angles, with hard-wood dovetails ¼ inch thick on the underside, and neatly fitted to back legs. The back rail will be 2½ by ⅞ inches, rebated for seat, neatly joined and framed to side rails. The back legs will be in one piece, cut out of the solid, 1¼ inches thick. The head rail will be ⅞ by 2⅜ inches, bottom rail will be ⅞ by 2⅝ inches, the uprights ⅞ by 2⅜ inches, and the centre rosette 1 by 6 inches—all moulded, stop-chamfered, carved, and framed together, as shown. The two moulded brackets at seat, connecting seat and back, and turned knobs at head of back, will be as shown, securely fixed in position. The whole will be of the best quality black walnut. THE SEAT WILL BE OF PATENT PERFORATED BLACK WALNUT, set in the chair flush with the top rim, and properly sprigged thereto, the heads of the sprigs to be covered by best quality steel nails.

HARDWARE.—The front legs will be provided with English rubber-beaded castors.

FINISH.—The whole chair will be finished with four coats of shellac, rubbed down with pumice-stone and oil.

A. B. MULLETT,
Supervising Architect.

177 In the United States circuit court for the southern district of New York. In equity.

WM. GARDNER ET AL.
vs.
MARTIN HERZ.

UNITED STATES OF AMERICA,
District of Columbia, Washington City:

ORA L. PITNEY, being duly sworn, deposes and says: I reside in the District of Columbia; I was custodian of the Treasury building for over five years, viz, from June 16, 1876, to June 17, 1881, and it was a part of my duty as such officer to superintend the purchase of chair seats for the purpose of repairing chairs whenever, in my judgment, such purchases were necessary in said building. During my term of office, and from time to time, large numbers of Gardner's patent three-ply concave perforated veneer seats were purchased under my direction. The said perforated veneer seats were used to replace cane seats as they became worn and unfit for further use, and the perforated veneer seats were found to be much cheaper and far more durable, and were generally preferred to the
178 cane seats. The cost of the perforated veneer seats was at least fifty per cent. less than the cost of the cane seats. I do not recall a single instance in which the Gardner seats needed repair, while the cane seats were frequently in need of repairs, and in point of durability could not be compared to the perforated veneer seats supplied for use of the aforesaid department building. I have no interest in the before-described Gardner perforated seats nor in the above-entitled cause.

OPA L. PITNEY.

Subscribed and sworn to before me this 27th day of September, 1881, the affiant being personally known to me, and I have no interest in the matters referred to in his affidavit.

JOSEPH FORREST,
Notary Public.

NEW YORK, *October 5th*, 1881.

Met pursuant to adjournment.

Present: Counsel for the respective parties, as before.

GEORGE CHIPMAN, a witness called in behalf of the complainants, having been duly sworn and examined by counsel for complainants, testified as follows:

Q. 1. What is your name, age, residence, and occupation?

A. My name is George Chipman; my age is 62; I reside in Baltimore, Md.; I am a manufacturer of chairs; the name of my firm is George Chipman & Sons; we have also a branch house in Philadelphia.

Q. 2. Are you acquainted with the Gardner chair seat, such as represented by Complainants' Exhibit Gardner Chair Seat; if so, for how long?

179 A. Yes, sir; I think for about five years.

Q. 3. How many Gardner seats, if any, do you buy annually?

A. I should say about ten thousand.

Q. 4. What do you do with those Gardner seats you buy?

A. In the large majority of them we apply them to the common Grecian cane-seat frame chairs; we apply the rest to other styles of chairs.

Q. 5. State whether or not your firm puts these Gardner seats on the chairs pursuant to orders of the parties ordering the chairs.

A. We do.

Q. 6. What class of dealers are your customers?

A. Wholesalers and retailers; more especially retailers.

Q. 7. About how many chairs per year do you sell with the Gardner seats attached?

A. I should judge about ten thousand.

Q. 8. Where is your trade in these chairs with Gardner seats located?

A. Pennsylvania, Maryland, and the South.

Q. 9. Do you sell cane-seat chairs?

A. We do, largely.

Q. 10. What, if any, difficulty do you experience in supplying chairs with cane seats?

A. Well, just at the present time we find a difficulty in getting as much cane work done as we really need.

Q. 11. Has that happened before?

A. It has.

Q. 12. Then what have you done when you met difficulty in having your chairs seated with cane, pursuant to orders?

A. In most instances we are obliged to wait a time until we fill them with cane work; in other instances we have, with the consent of the parties ordering, filled the order with the Gardner seat.

180 Q. 13. What is the best substitute you know of for a cane seat?

A. I know of nothing better than the Gardner perforated seat.

Q. 14. What do you know, if anything, about wire and paper having been attempted to be used as chair seats?

A. I should say very little; so very little that my answer can't be of much importance. It was attempted in my place to make a wire seat; when we attempted it we intended it as a substitute for the cane, because it was to be made like the cane, open work. It was given up as of no utility whatever. There was only one square piece, and that was braided or woven by hand. My machinist tried to make the paper seat, without any success whatever.

Q. 15. How long have you been in the chair business?

A. Eight years.

And on cross-examination by Mr. FOSTER the said witness further testified as follows:

X Q. 16. Who is the largest dealer in cane-seated chairs at the present time?

A. I should say Heywood Bros.; they have that reputation—not knowing.

X Q. 16½. Where are they?

A. At Gardner, Mass.

X Q. 17. Have you any knowledge of the number of cane-seated chairs Heywood Bros. sell?

(Objected to as not alluded to in the direct.)

A. No, sir.

X Q. 18. How many cane-seated chairs do you sell annually?

A. Twelve hundred dozen annually.

181 X Q. 19. How much larger would you feel safe in saying Heywood Bros.' business is than yours in cane-seated chairs?

A. I should say it is four times.

X Q. 20. Do you manufacture your own chairs with the cane seat?

A. We do, a large proportion of them.

X Q. 21. Who are the other large dealers in cane-seated chairs?

A. The Walter Heywood Chair Co., of Fitchburg, Mass.; S. Bent & Bros., of South Gardner, Mass.; Keene Chair Co., of New Hampshire. There is one in Jamestown, N. Y.; I believe it is called the Jamestown Chair Co.; it is a large concern; the Marietta Chair Co., of Ohio; the Grand Rapids Chair Co., Mich., and a good many others.

X Q. 22. Have you any knowledge of the Seymour Chair Co., of Troy, as to the extent of their trade in cane-seated chairs?

A. None at all.

X Q. 23. Do you know Hall & Garrison, of Philadelphia, and the extent of their trade in cane-seated chairs?

A. I have no knowledge of the firm whatever.

X Q. 24. Did you ever hear of H. T. Pratt, of Massachusetts, as a dealer in cane-seated chairs?

A. No, sir.

X Q. 25. How many times have you found a difficulty in supplying cane-seated chairs, and what was the nature of the difficulty experienced?

A. Last season and the present year, the fall of 1880 and the fall of 1881, are the only occasions when, to my certain knowledge, we had any difficulty in getting cane labor. The difficulty was to get cane labor.

X Q. 26. Does it require considerable skill to make cane-seated chairs?

A. I should say not.

182 X Q. 27. Are the number of work-people on cane-seated chairs increasing or decreasing?

A. I should say increasing with us.

X Q. 28. Are your orders for cane-seated chairs increasing or decreasing?

A. Increasing.

X Q. 29. Is the trade in cane-seated chairs among other manufacturers increasing or decreasing?

A. In my judgment, increasing, to the best of my information.

X Q. 30. Is it a fact that cane-seated chairs are going out of use, and that the Gardner seat is taking the place of them?

A. Not in my judgment.

X Q. 31. Which, according to your experience and in your judgment, is the better seat, the Gardner seat or cane seats?

A. The majority of our trade or business prefer the cane work.

X Q. 32. Has it been necessary at any time since 1871 to get up or make a seat for a chair as a substitute for cane, as a matter of necessity?

(Objected to.)

A. That was before my time in the chair business, really.

X Q. 33. Answer the question from the time you have been in the business.

(Objected to as irrelevant and immaterial.)

A. I should say not.

X Q. 34. How many years back can you go in the chair business in reference to your last answer?

A. I should say eight years.

183 X Q. 35. Has the question of supply and demand in regard to cane and cane-seated chairs during these eight years been materially different from other branches of the trade; that is, the price varying and the labor varying, according to the supply and demand?

A. I suppose not.

X Q. 36. Has there been at any time such a scarcity of cane or of cane-workers as to make it impossible to furnish the trade with cane-seated chairs?

A. There have been instances when it could not be done promptly; I might say promptly as desirable.

X Q. 37. Has it been impossible to furnish the trade with cane-seated chairs from a scarcity of cane or cane-workers?

A. I should say not, in my opinion; it is made up of delay in the orders; it makes the orders furnished later.

X Q. 38. Do such delays occur to your knowledge in other lines of trade, outside of chairs?

A. They do.

X Q. 39. Which, according to your experience, is the most comfortable and durable seat, when equally well made, the cane seat or the Gardner seat?

A. As far as comfort is concerned, the cane seat; I should say there is very little difference in a well-caned seat; they are about equal in the durability.

X Q. 40. How long will a well-caned seat last with average use?

A. I should say ten years.

X Q. 41. What would be the result in your trade if you should to-day stop making cane seats and use nothing but the Gardner seats?

A. I should say there would be quite a falling off in my business; a reduction in the amount of trade.

X Q. 42. Could you with any safety notify your customers that hereafter you would use nothing but the Gardner seats as substitute for the cane seats, and maintain your present position in the trade?

184 A. Not so unless it became universal, the abolishing of the cane work; then we would stand equal chance, probably.

X Q. 43. Is it the reputation of the Gardner seats in the trade that they are a substitute for cane seats?

A. The best substitute I know of.

X Q. 44. Is it the general reputation of the Gardner seat that it is a substitute for cane seat, or does it occupy a place separate from the cane seat in the trade?

A. It is a substitute, and occupies a place separate. That is my own experience; we use them in that way.

X Q. 45. Do you know the aggregate number of cane-seated chairs made and sold in this country by the entire trade?

A. I do not.

X Q. 46. How many wire seats did you make?

A. We never completed one, and only made one attempt.

X Q. 47. How many paper seats did you make?

A. Not one.

X Q. 48. Have you any knowledge of the use of veneers, with their grains crossing, for use in making furniture prior to 1871?

(Objected to as not alluded to in the direct.)

A. None at all.

Redirect:

Re D. Q. 49. Are or are not your purchases of Gardner seats annually increasing?

A. I should say they were, up to the present time.

Re D. Q. 50. What do you know, if anything, about the trade regarding the Gardner seat as a substitute for cane?

A. A goodly proportion of our trade order the Gardner seat.

185 Recross:

Re X Q. 51. Are these seats ordered expressly as a substitute for cane?

A. There is nothing said about a substitute in the orders; they simply order a Gardner seat—perforated.

Redirect:

Re D. X Q. 52. In case the customers could not get the Gardner seats put in their chairs by you what would you have to substitute?

A. We should offer them the cane chair.

Recross:

Re X Q. 53. Is there any doubt in your mind whether your offer of cane seat would be accepted or not in place of the Gardner seat?

A. None at all, I think.

Re X Q. 54. Do you mean the cane seat would be accepted?

A. Yes, sir.

Re X Q. 55. Suppose you reverse the proposition, and you could not supply the cane seats to your customers, could you then give them the Gardner seat as a substitute?

(Objected to as already answered.)

A. We should offer it.

Re X Q. 56. Is there any doubt in your mind as to whether the customers would accept the Gardner seat as an equal substitute for the cane?

(Objected to as already answered.)

186 A. There is always a doubt in our minds when we can't furnish the order as directed, and I should say 'here would be a doubt here.

GEO. CHIPMAN.

Subscribed and sworn to before me this 5th day of October, 1881.

JOHN DELAHUNTY,
Notary Public, N. Y. City and Co.

NEW YORK, *October* 10, 1881.

Met pursuant to adjournment.

Present: Counsel for the respective parties as before.

DANIEL CHAFFEE, a witness called in behalf of complainants, having been duly sworn and examined by complainants' counsel, testified as follows:

Q. 1. What is your name, age, residence, and occupation?

A. My name is Daniel Chaffee; I am 68 years of age; I reside in the city of New York; my occupation is furniture and chair making.

Q. 2. How long have you been connected with chair making, and to what extent?

A. I commenced chair making at Springfield, Mass., fifty years ago, when I was eighteen years of age. I have been in the business ever since. That has been the business of my life. I have been a practical manufacturer and a dealer in chairs since, in the city of New York, Augusta and Atlanta, Georgia.

187 Q. 3. I hand you Defendants' Exhibit Farmer Patent, and ask if you knew the William S. Farmer therein mentioned.

A. I did know him. I first knew him in 1865 or 1866. I became intimately acquainted with him.

Q. 4. State the circumstances under which you became acquainted with him.

A. I was in business in Elm street, near Canal street, New York, opposite Howe's distillery, where Mr. Farmer was a book-keeper. It is there I became acquainted with him. I was in the furniture and chair business then in the city of New York.

Q. 5. Please state what you know about said Farmer getting up a chair seat made of hide.

A. Mr. Farmer, about 1866, submitted to me a plan he had conceived of a chair seat made from hide to supersede cane. We talked over the matter frequently. At his request I gave him my opinion about it. When the idea was suggested to me I thought well of the proposition, being of the opinion that if he could produce a seat that would look better than cane, last longer, and be better there would be no doubt about its success. After that he obtained a patent and produced a chair with his hide seat on it. In examining the chair in that shape I gave my opinion again upon the subject, which was, I feared it would not be a success; for the reason that it would not be possible for him to produce a seat that would combine the economy and beauty that he desired; therefore, I declined taking any interest in it. There was about that time a suggestion that I should take an interest in it.

Q. 6. Please state what was actually done by Farmer towards reducing his idea to practice, and the results thereof.

A. He associated himself with a man by the name of Freeland, for the purpose of arranging for some machinery for cutting and stamping the seat. They hired a room somewhere in the vicinity of Mott street,

188 Freeland went to work on the seats with that machinery. They produced some seats, which they affixed to chairs for samples, which they placed in show windows of dealers in furniture and chairs about the city. No results arose; that is, they made no sales that I ever knew of. The chairs did not become marketable; it was generally disapproved of by the trade; the seat was not a success. The trade did not consider it as cheap or as comfortable or as handsome as a cane seat.

Q. 7. How was it that Farmer consulted you in the matter?

A. I suppose he regarded me as an expert; he knew I was in the business.

Q. 8. What became of Farmer, his associate, and the business?

A. Mr. Farmer was discharged from the distillery by Mr. Howe on account of his attention being distracted by this hide-seat business. Mr. Howe told me that at that time. The shop was given up, I think, on account of not paying the rent. Mr. Freeland left the city and went into another business. Mr. Farmer came and lived with me some two or three months, most of the time. Afterwards he went West. I have lately learned that he is dead.

Q. 9. Who and what was Farmer?

A. He was a native of New England and a book-keeper for Ephraim Howe, the distiller, in Elm street. He had no practical mechanical ideas.

Q. 10. Are you acquainted with the Gardner chair seat, such as is represented by Complainants' Exhibit Gardner Chair Seat.

A. I am and have been since its introduction, in a general way. I have used it in seating hundreds of chairs. I do not know the inventor of this seat.

Q. 11. What can you say as to any want having been felt by the trade previous to the introduction of the Gardner seat for the introduction
189 of a seat which would be a substitute for the cane seat, giving the reasons for any such want?

A. From my boyhood the subject of discussion in the trade was what could be adopted as an improved seat, over rush and cane, for the reason that rush and cane seats cost too much; that was the principal reason. The consequence was that when the Gardner seat was introduced it met the approval of the trade and was regarded as something which they had been looking after, as a substitute for cane and rush, which were the best seats then known.

Q. 12. Please state any attempt that you may have known, prior to the introduction of the Gardner seat, to get substitutes for cane and rush seats.

A. I have known attempts being made to make chair seats of twine, cloth, list, tin, sheet-iron, leather, strings and hide, as substitutes for cane. Those attempts were not successful in any instance to my knowledge.

Q. 13. As a person conversant with the chair business, what is your judgment of the Gardner seat?

A. My judgment is that it is one of the best substitutes that has ever been introduced for cane and rush; it is the only substitute for cane and rush. The Gardner seat has superseded rush and cane seats more than all the other seats that have yet been introduced; for reseating cane seats the Gardner seat is almost invariably adopted.

190 NEW YORK, *October* 14, 1881.

Met pursuant to adjournment.

Present: Counsel for respective parties as before.

The witness, Daniel Chaffee, being cross-examined by Mr. FOSTER, testified as follows:

X Q. 15. Was the Farmer seat nailed to the chair-seat frame?

A. I think it was, sir.

X Q. 16. Don't you know?

A. I believe it was.

X Q. 17. Are you positive of it?

A. I am as positive of it as I could be of anything so far back as that.

X Q. 18. Are you as positive that the Farmer seat was nailed to the chair-seat frame as you are that you were acquainted with Mr. Farmer, the inventor?

A. I am as positive that I saw a seat of that kind presented to me nailed to the chair. I know we had many conversations in regard to the mode of fastening it. I know I saw one fastened with tacks or nails.

X Q. 19. What was the material of which the seat was made, and how was it prepared?

A. I can't tell how it was prepared; it was made of hide.

X Q. 20. What, if you know, constitutes a seat proper to a chair?

A. Any substance that would be sufficient to sit on.

X Q. 21. Must the substance to sit upon have a frame; and, if so, does or does not the frame constitute a part of the seat?

A. It is not necessary to have a frame for a seat to constitute a seat.

191 X Q. 22. Have you any knowledge as to the mode of fastening the Gardner seat to seat frames; and, if so, what is it?

A. The usual mode is to tack them on with brads or brass nails.

X Q. 23. What, if any, difference exists between the manner or mode of fastening the Farmer seat to a seat-frame from the mode or manner of fastening the Gardner seat to a seat frame?

A. The only difference is the manner in which one chooses to fasten it on; the Gardner sits right over the frame near the edge, and is there tacked, bradded, or nailed down; the Farmer seat was set in a groove, or it might be done the same way as the Gardner seat; it was set in a groove so that it was flush with the frame of the seat.

X Q. 24. As to the manner of securing the two seats to the seat-frame by brads or nails, was there any difference in that respect?

A. I think not.

X Q. 25. Do you know how the Farmer seat was perforated?

A. I think it was perforated with a stamp, some machine that they had made.

X Q. 26. Did you ever see any Farmer seats perforated by this machine?

A. No, I never saw the machine work; I only know that by the conversations had between Farmer and myself.

X Q. 27. Is there any difference between the perforations in the Farmer seat and the perforations in the Gardner seat?

(Objected to as not alluded to in the direct.)

A. The only difference was in the pattern of the openings—in the form

of a round hole, or star, or any other pattern that might suit the fancy of the manufacturers.

192 X Q. 28. Could these perforations or openings be made in the Farmer and Gardner seats and just the same in both of them?

A. I know of no reason why they could not.

X Q. 29. In what condition, if you know, was the Farmer seat applied or secured to the seat frame; was it wet or dry?

A. The plan was to have it soaked or wet; that was the plan frequently discussed between Mr. Farmer and myself, and that was the plan adopted, I think.

X Q. 30. What was the reason for adopting that plan?

A. My reason for it was it would contract when dried, make the seat more permanent like a drum-head.

X Q. 31. What was the actual result when you applied this Farmer seat to the seat frame in a wet condition, after the seat dried?

A. It came stiff, hard, like a drum-head somewhat.

X Q. 32. What was its appearance?

A. The general appearance was that of a hide seat, so far as looks were concerned.

X Q. 33. Did it have a handsome appearance?

A. Well, when it was completed it did not come up to my expectations.

X Q. 34. In what respect did it fail?

A. In point of appearance principally, and I had grave doubts about its success, believing the action of the atmosphere, the climate, would work serious changes upon it.

X Q. 35. What effect, if any, did the Farmer seat have after it had dried, or while it was drying, upon the nails or brads which secured it to the seat frame?

A. The seat would contract under the influence of the climate, the weather; consequently it would draw and loosen the fastenings.

193 X Q. 36. What effect did the Farmer seat have on the nails when it was secured to the seat frame in a dry condition; would it draw the nails then?

A. No, it would not; I think not.

X Q. 37. What serious changes, to your knowledge, did take place in the Farmer seat under the influence of the climate?

A. Not very serious during my observation of it; the effect became apparent as soon as it dried; it would have to give.

X Q. 38. Do you know of any serious changes taking place in the Farmer seat by the action of the atmosphere or the climate?

A. No. The seat didn't come under my observation long enough to make any serious effect.

X Q. 39. Don't you know, as matter of fact, that leather seats are used to-day upon chairs?

A. I know they are in the country.

X Q. 40. Who could adapt the Farmer seat to a seat frame; what class of persons could do it?

A. Any man who had any knowledge of mechanism.

X Q. 41. Would it require what is known as skilled labor?

A. I think not.

X Q. 42. Were these Farmer seats, to your knowledge, embossed or pressed to a concave-convex form?

A. I don't believe I saw one. I think they were flat. I have no recollection of seeing them in any other form than flat.

X Q. 43. Wasn't there some of these Farmer seats embossed, or made concave?

A. I think I saw one of them embossed.

X Q. 44. Describe that one which was embossed, as to the embossing.

A. I couldn't remember the different figures that was upon it, if any; whether it was plain or in figures.

X Q. 45. Did the embossing produce depressions in the seat?

194 A. No. Embossing is pressing, and whatever figure was pressed into the leather would press it down.

X Q. 46. Would this embossing, where the figures occurred, produce depressions in the Farmer seat?

A. I think not beyond what I have stated.

X Q. 47. Now reconcile your two statements and explain what you mean, to wit, "Embossing is pressing; whatever figure was pressed into the leather would be pressed down," and the statement that the embossing would not produce depressions in the seat, as in Q. and A. No. 47.

(Objected to as assuming the witness has made inconsistent statements.)

A. It would not depress the entire surface of the seat at all, but where the figure occurs in the seat it did leave a depression.

X Q. 48. Could the Farmer seat be finished with varnish or shellac to produce a handsome appearance?

A. It could be finished with some kind of shellac, ornamented or finished in any way that the taste of the inventor might desire.

X Q. 49. Are the only differences between a cane seat and the Farmer seat those mentioned by you in answer to Q. No. 6, to wit: "We did not consider it as cheap, or as comfortable, or as handsome as a cane seat?"

A. That is all the differences that occurred to me that I stated there.

X Q. 50. Would the Farmer seat in other respects be a good substitute for cane?

A. I know no reason why it would not.

X Q. 51. Is the Gardner seat as handsome as cane seat?

A. That is all a matter of opinion. My opinion is that it is fully as beautiful as the cane seat, and more so.

195 X Q. 52. Do you know Heywood Bros.; and, if so, do you mean that the Gardner seat is as beautiful as any cane-seated chair which Heywood Bros. made?

A. I know Heywood Bros. I believe the Gardner seat as beautiful as any cane seat they produce.

X Q. 53. What makes the Gardner seat, in your judgment, a substitute for cane seats. Is it the material?

A. Both equally well made the Gardner seat would be preferable for durability, form, comfort of seat, wears the seat less that sits on it, and would have the preference in point of appearance; for reseating old cane chairs it has the preference of all other seats known to the trade.

X Q. 54. Is it not true that these features mentioned by you as existing in the Gardner seat are due to the material of which the seat is composed?

A. The material partly, the form of the material, and the construction and form of the seat.

X Q. 55. Isn't it true that a cloth or tin seat would look equally as good as the Gardner seat if those materials would permit of the same form and finish as the material used in the Gardner seat?

(Objected to as incompetent.)

A. In the first place, list or cloth could not, in the nature of things, be made in the shape of the Gardner seat. In regard to tin or sheet iron, if it could be made in the form of the Gardner seat there would be, first, one serious objection, which would not admit of its being used. Medical experts have decided that metal is very injurious to sit on.

X Q. 56. When was it that you saw the seats made of the six different materials mentioned in your answer to Q. 12, to wit: "Twine, cloth, list, tin, sheet-iron, leather strings?"

A. That I couldn't answer; at different times during my business life.

196 X Q. 57. Was it prior to 1871?

A. I should think it was.

X Q. 58. Were any of them made concave?

A. No; I don't remember any. It seems to me I saw a sheet-iron seat that was concave.

X Q. 59. Were any of them perforated?

A. I think the sheet-iron one had holes in it.

X Q. 60. Were any of them for sale on the market?

A. That might possibly be. They had no standing in the trade.

DANIEL CHAFFEE.

Subscribed and sworn to before me this 14th day of Oct., 1881.

[SEAL.] JNO. DELAHUNTY,
Notary Public, N. Y. City and Co.

NEW YORK, *November* 10, 1881.

Met pursuant to notice.

Present: P. J. O'Reilly, esq., for complainants; J. P. Foster, esq., for defendants.

CHARLES N. ARNOLD, a witness called in behalf of complainants, having been duly sworn and examined, testified as follows:

Q. 1. What is your name, age, residence, and occupation?

A. My name is Charles N. Arnold; I am 43 years of age; I live in Poughkeepsie, N. Y.; I am a chair manufacturer, and am also connected in the lumber business; my firm in the chair business is Arnold & Co.

Q. 2. Are you acquainted with the Gardner chair seat such as is represented by Complainants' Exhibit Gardner Chair Seat?

197 A. Yes, sir; we have been using it five or six years.

Q. 3. How many of said Gardner seats do you use per annum?

A. Well, at a guess, I should say we are using about 15,000 seats in a year.

Q. 4. Please state in what way you use them?

A. We use them both for seating chairs and in the retail and wholesale trades to others for seating chairs.

Q. 5. What can you say as to the difference in cost between seating a chair by cane and seating a chair by the Gardner seat?

A. The Gardner seat is costing us 30 per cent., about, less than cane seat.

Q. 6. Please state which is the more durable seat—a cane seat or the Gardner seat.

A. I consider the Gardner the more durable.

Q. 7. To what extent?

A. Well, that is a question which I have not considered; that would depend very much on the use of it and the wear.

Q. 8. State what facts have come within your observation on that subject, if any.

A. Well, I find that almost universally the Gardner seat is sought for to replace cane seats worn out, in our trade?

Q. 9. State what, if any, facts that may have come to your knowledge regarding the durability, relatively, of cane seats and Gardner seats.

A. In order to answer that question—I haven't had an experience in testing the two seats as to the relative durability; we use them both and sell them both largely; the Gardner takes the place of cane for repairs.

Q. 10. Please state what chair seat, if any, is a substitute for cane-seats.

A. I have never made use of any except the Gardner seat.

198 Q. 11. What, if any, difficulty have you experienced in having your chairs caned?

A. There is great difficulty in getting a sufficient number of experienced workmen—women and children—to do a sufficient quantity of work; that is a difficulty experienced by all manufacturers.

Q. 12. What is the primary cause of this difficulty in your section of the country?

A. The great demand for the same class of labor as in chair-seating. There are a great many manufacturers of other articles around Poughkeepsie using that kind of labor who pay more for it than we can afford; I refer to shirt manufacturing, silk manufacturing, skirt manufacturing, &c.

Q. 13. What, if any, effect does the use of the Gardner seat have in relieving this difficulty?

A. It is a relief to us to the extent of the chairs we sell with the Gardner seat.

Q. 14. How is it a relief?

A. I think we are enabled to sell so many more chairs, because we are relieved to that extent from seating.

Q. 15. Do you mean that you are enabled, by using the Gardner seat, to dispense with the employment of caners?

A. We cane seats quite largely for other manufacturers, and the sale of chairs with Gardner seats helps us in that branch of our business.

CHARLES N. ARNOLD.

Subscribed and sworn to before me this 10th day of November, 1881.

JNO. DELAHUNTY,
Notary Public, N. Y. City and Co.

199 NEW YORK, *November* 16, 1881.

Met pursuant to notice.

Present: P. J. O'Reilly, esq., for compl'ts; J. P. Foster, esq., for def'ts.

SAMUEL KEEFER, a witness called in behalf of complainants, being duly sworn and examined, testified as follows:

Q. 1. What is your name, age, residence, and occupation?

A. My name is Samuel Keefer; I am 57 years of age; I reside in New York City; I am a hotel-keeper by occupation; I keep the Grand Central Hotel in the city of New York.

Q. 2. Are you acquainted with the Gardner chair seat, such as is represented by the seat now shown you, being Complainants' Exhibit Gardner Chair Seat?

A. Yes, sir; I am.

Q. 3. How long have you been acquainted with it?

A. Some four or five years; five years, I believe.

Q. 4. State what experience you have had with it.

A. I used them quite liberally in furnishing the Manhattan Beach Hotel in 1877. I can't tell how many; it was between 500 and 1,000; I first bought a quantity, and then I doubled it up. I don't know how many. My books will show how many there was.

Q. 5. Please state what kind of usage those seats got, and how they stood it.

A. We used them in the dining-room, on the piazzas, all around the hotel, and they stood it very well. They gave entire satisfaction. About two or three years after we bought some more of them. I knew Mr. Corbin gave orders to buy some, and there were a lot more bought.
200 That was some two or three years after the first lot was bought. I won't say what year; it was some two or three years.

Q. 6. What experience have you had with the Gardner seat in your Grand Central Hotel?

A. I bought a number of the Gardner chairs, and I had some old ones that had been cane-seated, and I had them taken off and replaced with the Gardner seats—wooden chairs.

Q. 7. What satisfaction have the Gardner seats used in your Grand Central Hotel given?

A. They have been entirely satisfactory to me.

Q. 8. If you were to furnish an hotel to-morrow with furniture, what class of chair seats would you put therein?

(Objected to as incompetent, inadmissible.)

A. That would depend a good deal upon circumstances; if I was to furnish a summer hotel, I think I would do just as I have done; something new might come up; I would not like to promise just what I would do in case I was to furnish a new hotel; but so far as I have used the Gardner chair, they have been entirely satisfactory.

Cross-examination:

X Q. 9. When, if ever, did you make a personal inspection of the Gardner chair-seats used in your hotels, and to what extent did you make such an inspection or examination?

A. When I bought the chairs in 1877 is the first—when I was looking in the market for chairs; that is the only inspection I made of them.

X Q. 10. Have you made any inspection or examination of the Gardner chair seats used in your hotels for the purpose of testifying in this case in relation to them?

201 A. Not particularly to testify here; I have made no inspection for the purpose of testifying; the chairs are under my sight—I see them every day.

X Q. 11. When did you last examine the Gardner chair seats in use in your hotels, and how many of such seats did you examine? Give the details of the examination, what you did.

A. I made no examinations of the Gardner chair seats at the Manhattan Beach, and none particularly at the Grand Central. I have not made any examination at the Manhattan Beach for some time, as I have not been there in active management this summer.

X Q. 12. Can you give the date or the circumstances of a personal examination of the Gardner chair seats at the Grand Central Hotel since the purchase of those seats?

A. I have made no personal examination at any time of the seats; I see them every day when I am around the rooms.

X Q. 13. How many cane-seated chairs was there in use in the Manhattan Beach Hotel while you were actively connected therewith?

A. I don't know how many there was; all that I knew of during my management there was in the public parlor.

X Q. 14. Can you approximate the number?

A. No, I could not; Brown & Bliss can tell; they made them. I think the second or third year they got some of the Vienna chairs—how many I can't tell.

X Q. 15. Were all the chairs in the dining-room and on the piazzas provided with the Gardner seats?

A. All the dining-room chairs in the Manhattan Beach—that is when we opened it—were furnished with the Gardner chair seats. The piazzas—there were a great many purchased for that, but there were some Delaware chairs got for that. The Delaware chair seat is what they call double cane.

202 X Q. 16. How many cane-seated chairs have you in use in the Grand Central Hotel?

A. Very few; I can't tell how many. There is the billiard-room has a dozen or more as near as I can get at it—and there are a few rockers through the house—how many I can't tell.

X Q. 17. How many chairs with the Gardner seat did you buy for or have you in use at the Grand Central Hotel?

A. I can't tell without making an invoice of them—without looking at my bills, as I said; I bought some when I went there, and had some made over. If you wish I will give you an invoice of them.

X Q. 18. Would the number approximate to fifty or five hundred, or more?

A. It wasn't five hundred, I don't think, and it was more than fifty.

X Q. 19. Would the number be over 100?

A. Well, I refuse to answer until I know, because I don't think I ever knew how many there was; I never knew exactly; I might have known when the bill was paid.

X Q. 20. Which wears the best, if you know, a cane-seated chair or a Gardner-seated chair?

A. I prefer the Gardner-seated chair; I think the Gardner wears the best. The proof of that is that I use it.

X Q. 21. How long does the Gardner seat wear?

A. I can't tell how long it will wear; I have had it in use five years.

X Q. 22. How long have you had cane-seated chairs in use without wearing out?

A. I have not had them in use, only those I have found when I went there, which I reseated with the Gardner seat at the Grand Central.

X Q. 23. Have you at any private house had cane-seated chairs in use; and, if so, for how long a time without wearing out?

203 A. I think there are some in the dining-room in a house which I have, but am not occupying; there may be some cane-seated chairs there.

Redirect:

Re D. Q. 24. Please state what kind of exposure the Gardner chair received at the Manhattan Beach Hotel—I mean outside of inside exposure.

A. We had them in the dining-room and on the piazzas; I would consider it a good test, as the exposure was pretty severe on the piazzas.

SAMUEL KEEFER.

Subscribed and sworn to before me this 16th day of November, 1881.

JNO. DELAHUNTY,
Notary Public, N. Y. City and Co.

MORRIS K. SUTLIFF, a witness called in behalf of complainants, having been duly sworn and examined, testified as follows:

Q. 1. What is your name, age, residence, and occupation?

A. My name is Morris K. Sutliff; I am 39 years of age; I reside in Cleveland, Ohio; I am travelling salesman for Gardner & Co.

Q. 2. How long have you been such travelling salesman?

A. With the exception of nine months, I have been there since 1872; those nine months were in 1874.

Q. 3. In what sections have you been and now are such salesman?

204 A. From Buffalo and Pittsburgh, west to Omaha, north to St. Paul, and south to Louisville.

Q. 4. Please state the relative amounts of Gardner seats, such as represented by Complainants' Exhibit Gardner Chair Seat, and cane seats are sold in the Western States.

They vary in different sections. In the Southwestern section Gardner chair seats are the rule and cane the exception, and in Chicago and the Northwest it is about equally divided.

Q. 5. What can you say as to the Gardner seat having displaced and now displacing cane seats in the Western States?

A. The Gardner seat is displacing cane seats very fast, and in the far Western States it has entirely displaced cane seats and wood seats. In Pittsburg and St. Louis it has displaced the cane seat generally. It is used almost to the exclusion of cane-seat chairs.

Q. 6. How did the trade in the Western States receive the Gardner seats when you first commenced to sell them there?

A. That is a pretty hard question to answer; but I will say the trade liked them—always liked them. The manufacturers were slow to take hold of them on account of the change in the method of manufacturing chairs—the change in making chair-frames without the cane.

Q. 7. About how many Gardner seats did you sell for the first few years from 1872 per annum?

A. I think the first year I sold ten or fifteen thousand chair seats.

There has been a continual increase since then. I have sold so far this year, since January 1st, 364,809 chair seats; the value is $45,435\frac{37}{100}$ net.

Q. 8. How is the Gardner seat regarded in the Western States by chair manufacturers, furniture dealers, and users?

A. It is regarded with great favor. I can't say particularly
205 what the retail trade say, but the manufacturers say, "It is a God-send and a blessing." They say that because they are unable to get help to make cane-seated chairs, and because the scarcity of large lumber to make wood-seat chairs.

Q. 9. How are the Gardner seats considered in the West as to excellence?

A. They are considered very durable—very lasting.

Q. 10. To what extent is the Gardner seat employed in the West for reseating cane chairs?

A. It is about the only article used; nine-tenths of the old chairs in the country are reseated with the Gardner seat.

Q. 11. How much cheaper, if you know, is the cost of Gardner seats on new work than cane?

A. The difference in favor of Gardner & Co.'s seat is from 30 to 40 per cent. on new work.

Q. 12. What is the difference in cost between the two for reseating?

A. From 50 to 150 per cent. A good, first-class cane seat costs 75 cents. A first-class Gardner seat, the same proportion, would be 20 cents. An ordinary Gardner seat averages about 15 cents, and an ordinary cane seat about 25 cents, wholesale, manufacturers' cost.

Q. 13. What kind of seats are put in the new styles of chairs in the West?

A. Both Gardner seats and cane seats. All of the common new chairs, as a rule, have Gardner seats. Some of the finer goods use cane.

Q. 14. Please state what you know about Western manufacturers of cane chairs substituting Gardner seats for cane.

A. Some of them have substituted two-thirds, some all for cane, to the extent of a thousand Gardner seats a day.

Q. 15. Please state what, if anything, the manufacturers of chairs in the West say in reference to their having endeavored to get a substitute for cane.

206 A. They were always looking for a substitute previous to the Gardner seat, for the reason of the difficulty in getting their work done, to fill their orders; they couldn't fill them fast enough.

Q. 16. Please state the saving of time in seating chairs with Gardner seats over seating chairs with cane.

A. An active boy or man will cane about six chairs a day, and he could tack on two hundred Gardner seats a day.

Q. 17. Please state what you know, if anything, of the experience of the Detroit Chair Company with chair seats like Complainants' Exhibit Seymour Seat.

A. They experimented with the slat seat for about two years, and they sold about a thousand chairs; the seat proved worthless. They were obliged to replace them, in some cases with Gardner seats, and in other cases refunded the money for chairs sold. They also made about three hundred chairs and used the leather-board seat or paper and sold them to

a Sunday school; six months after they were obliged to replace them with the Gardner seats, because they cracked out.

Q. 18. Before the introduction of the Gardner seat, what seats in Pittsburg, St. Louis, Indianapolis, and Cincinnati were the rule, and what the exception?

A. Cane and wood seats were the rule; by the wood I mean plain board, upholstered seats; splint and flag seats were the exception.

Q. 19. What is the case now in those cities?

A. Gardner seats are the rule, and all else are the exception.

MORRIS K. SUTLIFF.

Subscribed and sworn to before me this 16th day of November, 1881.

JNO. DELAHUNTY,
Notary Public, N. Y. City & Co.

207 NEW YORK, *November* 17, 1881.

Met pursuant to notice.

Present: Counsel for the respective parties, as before.

OLIVER L. GARDNER, a witness called in behalf of the complainants, having been duly sworn and examined, testified as follows:

Q. 1. What is your name, age, residence, and occupation?

A. My name is Oliver L. Gardner; I am 46 years of age; I reside in Brooklyn; I am a member of the firm of Gardner & Co., complainants in this suit.

Q. 2. Please state the amount of wood material used by said firm annually in the manufacture of the Gardner three-ply, cross-grained, veneer, perforated, and concave seat.

A. From seven to eight million feet.

Q. 3. How many hands have said firm employed in the manufacture of said chair seats?

A. About one hundred and fifty in the manufacture and sale of the seat.

Q. 4. What is the extent of said firm's factory used for making those seats?

A. Our building covers about 140 feet by 100, and will average four stories, covering the whole ground; some covers six stories and some covers four.

Q. 5. Please state the different classes of dealers to whom said firm sells its said chair seats.

A. To chair-makers, furniture-dealers, cabinet, hardware, and export dealers.

Q. 6. To what extent is said Gardner chair seat exported by said firm, and to what places?

A. To South America, Cuba, England, France, Russia, but most extensively to Germany. We export to the extent of tens of thousands annually.

208 Q. 7. Please state what, if any, industry the said Gardner seat has introduced.

A. Hundreds of poor men are making a comfortable living canvassing with our seats in repairing cane-seat chairs. Now a good many of them are carrying a stock of seats, strung across their shoulders or under their arm, with a small hand-saw and nails for securing them to the chair-seat

frame where the cane has given out. These men go from house to house throughout the cities and towns soliciting jobs to work at.

Q. 8. How many infringers are there, to your knowledge, in the United States of the patent for said Gardner seat?

A. Four of them.

Q. 9. Please state what recognition, if any, has the Gardner seat received at public exhibitions.

A. We received medals—one at the Centennial in 1876, one at the American Institute in this city in 1873, and one at the Massachusetts Charitable Mechanics' Institution in 1878, and one at Sydney, South Wales, in 1879, and one in 1878 at Berlin, at the World's Fair held at both those places.

Q. 10. Can you produce a copy of the report of the judges at the Centennial Exhibition in regard to the Gardner seat?

A. I can; I now do so.

(Complainants' counsel offers in evidence the copy report just referred to, and the same is marked "Complainants' Exhibit Centennial Report, J. D., notary public.")

Cross-examination:

X Q. 11. Describe the chair seat about which you have just testified.

209 A. The exhibit that we have here, marked "Complainants' Exhibit Gardner Chair Seat," is substantially the construction I referred to.

X Q. 12. Is this exhibit a true and exact representation of the seats for settees, railway cars, and other long seats referred to in the Centennial report you have offered in evidence?

A. This is the main seat, in connection with a few other various styles or forms of seating.

X Q. 13. Can you specify or produce any instance of using seats like this exhibit for settees or railway cars?

A. I can't just name the place where they have been delivered to, but we have furnished settees furnished with that seat in several instances. I think Leggett's Hotel, on Chatham street, has settees with that seat in, if my memory serves me right.

X Q. 14. Is the concavity in these settee chair seats of a circular form, as in this exhibit?

A. In the cases that I have just referred to they are.

X Q. 15. What other styles different from this exhibit did you refer to in your answer to X Q. No. 12?

A. We manufacture perforated veneer seating in connection with our original patent seat of various shapes and forms of concavities adapted to different styles of chair and settee frames.

X Q. 16. Is the concavity in the other styles a circular concavity, as shown in this exhibit marked "Complainants' Exhibit Gardner Chair Seat," or is it a form of concavity, as shown in Def'ts' Exhibit Gardner Yellow Chair?

A. Some that form and some other form that may be required to suit the peculiar constructed chair frame.

X Q. 17. Do you stamp all these various styles of seats with concavities of different forms, as patented under the patent sued upon in this case?

A. I am not sure as to their all being stamped; that is done entirely at the factory, and I have not noticed the fact.

210 X Q. 18. What chair seats do you so mark patented, to your knowledge?

A. Since our competition—or, as we claim, infringers—have been manufacturing, I have had a special stamp or mark and ordered it to be put on every chair seat manufactured by us so that it can be identified from the other manufacturers'.

X Q. 19. Do you find this special stamp on the Complainants' Exhibit Chair Seat and the Def'ts' Exhibit Gardner Yellow Chair?

A. Yes.

X Q. 20. To what patent does this stamp refer, and for what special purpose is it attached to the chair seats just referred to?

A. It is intended to refer to our perforated veneer seat as patented in 1872, and reissued since; it is attached to notify people that it is a patented article.

X Q. 21. Is the reissue patent referred to by you in your last answer, No. 9044, sued upon in this case?

A. Yes.

X Q. 22. Do you claim that the seat having any form of concavity is included within that patent, and therefore you gave the order to stamp every chair seat with this special stamp for the purpose you have designated?

(Objected to as irrelevant and immaterial and as not alluded to in the direct examination.)

A. We only claim in this suit this particular concavity in this Complainants' Exhibit Gardner Chair Seat.

X Q. 23. What form of concavity did the settees have at the exhibition in 1876 and referred to in your Exhibit Centennial report?

A. There was a variety of forms—different kinds—I don't remember specially; I don't remember the particular form.

X Q. 24. Was some of them of the same form as Def'ts' Exhibit Gardner Yellow Chair?

211 A. Yes.

X Q. 25. Were or were not those settees with seats similar to this Exhibit Gardner Yellow Chair, claimed by Gardner & Co. to be the same invention as the seats for chairs referred to in that Centennial report?

A. We made no special claim on that, to my knowledge.

X Q. 26. Did you claim that the chair seats referred to in that report were patented?

A. We did.

X Q. 27. Under the patent sued upon in this case?

A. The patent wasn't reissued at that time.

X Q. 28. Didn't you have a patent on the chair seat at that time shown at that exhibition?

A. Yes.

X Q. 29. Was that chair seat the same as the one in controversy in this suit?

A. Yes.

X Q. 30. Was the patent you had on the chair seat in 1876 for settees also?

(Objected to, as the patent will show for itself.)

A. The seats were frequently used on settees.

X Q. 31. And all were made under the same patent, to wit: the seat for chairs and for settees and railway cars mentioned in this Centennial report?

A. To the extent that the Government admitted the patent to cover or may admit.

X Q. 32. Since this Centennial report you have obtained the reissue patent sued upon in this case, have you not?

A. I have.

X Q. 33. Have you eliminated from the reissue patent sued upon the seats for settees and railway cars and halls and churches referred to in this report, and confined the patent simply and only to seats for chairs?

(Objected to as incompetent.)

212 A. I couldn't say that, as our seats have been and may continue to be used for seating the articles mentioned.

X Q. 34. And they may continue to be made with concavities of all forms as required to suit the peculiar construction of chair frames, may they not?

A. We are not making any such claim in this suit.

X Q. 35. Do you mean to be understood that the only thing, article, or device to which your firm have a claim under the patent sued upon in this case is the chair seat as made and shown by the Complainants' Exhibit Gardner Chair Seat, and that the other things and seats, for which you have obtained medals and also referred to in this Centennial report, have nothing whatever to do with this suit or the patent sued on?

A. This (referring to Compl'ts' Exhibit Gardner Chair Seat) is the only article in the present suit which we are claiming.

X Q. 36. And do you mean for which you have a patent?

A. I don't know as to the extent of my patents—or our patents.

X Q. 37. Don't you know what other articles you are making under the patent in dispute besides this exhibit, if any?

A. Not being the original patentee I cannot tell.

OLIVER L. GARDNER.

Subscribed and sworn to before me this 17th day of November, 1881.

JNO. DELAHUNTY,
Notary Public, N. Y. City and Co.

213 Complainants' counsel puts in evidence:

1. Certified copy of the file-wrapper and contents in the matter of the letters patent granted George Gardner and others, dated May 21, 1872, No. 127045. The same is marked "Complainants' Exhibit Original Application, J. D., Notary Public."

2. Certified copy of the file-wrapper and contents in the matter of the letters patent granted George Gardner and others, dated May 21, 1872, No. 127044. The same is marked "Complainants' Exhibit Application for Patent No. 127044, J. D., Notary Public."

3. Certified copy of the appeal in the matter of the reissue letters patent granted Gardner and others February 24, 1880, No. 9094. The same is marked "Complainants' Exhibit Reissue Appeal, J. D., Notary Public."

4. Certified copy of the decision of the examiners in chief in the matter of the reissue patent to Gardner and others February 24, 1880, No. 9094. The same is marked "Complainants' Exhibit Reissue Decision, J. D., Notary Public."

5. A certified copy of letters patent of the United States granted to Henry I. Seymour, assignee of Robert Wood, dated March 9, 1864, No. 42150. The same is marked "Complainants' Exhibit Seymour and Wood Patent, J. D., Notary Public."

214 United States circuit court, southern district of New York. In equity.

WILLIAM GARDNER ET ALS.
vs.
MARTIN HERZ ET ALS.

It is hereby consented that the annexed affidavits of Sevellon A. Brown, Boone Chambers, William T. Kent, George K. Finckel, William J. Warren, John W. Hogg, J. R. Van Warmer, George M. Lockwood, C. W. Holcomb, Ezra L. Stevens, Malcolm Seaton, Raphael P. Thian, and Samuel Mulliken, taken on the part of the complainants, be read and used on the part of the complainants on the final hearing of this cause with the same effect as if said affidavits were depositions duly taken in the cause, and the affiants subjected to cross-examination.

Dated December 7, 1881.

FOSTER, WENTWORTH & FOSTER,
Defendants' Solicitors.

[Title and venue.]

Sevellon A. Brown, a citizen of Washington City, District of Columbia, being duly sworn, deposes and says:

I have occupied the position of chief clerk of the State Department of the United States since 1872. The patented Gardner three-ply concave perforated veneer chair seats are in use in the State Department
215 building; are durable, make an excellent chair, and give entire satisfaction.

I have no interest in the above-entitled cause, directly or indirectly.

SEVELLON A. BROWN.

Subscribed and sworn to before me this 6th day of December, 1881. I have no interest in above suit.

[SEAL.] JOSEPH FORREST,
Notary Public.

[Title and venue.]

Boone Chambers, residing at Washington City, D. C., being duly sworn, deposes and says as follows:

I occupy the position of chief clerk, Sixth Auditor's office, Treasury Department of the United States. Requisitions for chairs, etc., for the supply of said office are made by me by virtue of my said position.

The patented Gardner three-ply concave perforated veneer chair seats have been used in the Sixth Auditor's Office for five or six years past, to the extent of, to wit, one hundred or thereabouts. They give general satisfaction, are cheap and durable, and are used to replace the cane seats as fast as the latter wear out.

I have no interest in the above stated cause, directly or indirectly.

BOONE CHAMBERS.

Subscribed and sworn to before me this 6th day of December, 1881. I have no interest in the above-entitled cause.

[SEAL.] JOSEPH FORREST,
Notary Public.

216 [Title and venue.]

Wm. T. Kent, resident of the District of Columbia, being duly sworn, deposes and says:

I have been superintendent of the Paymaster-General's Office of the United States for the past four years, and it has been my duty in such capacity to attend to supplies of furniture for said office, and to see after the necessary repairs thereof. The Gardner patented three-ply concave perforated veneer chair seats have been used at the Paymaster-General's Office for several years past, and have received general approval and given high satisfaction.

These seats are preferred to cane seats on account of greater durability and economy, and give greater comfort and ease to those who use them, and do not sag.

I have no interest.

WM. T. KENT,
Superintendent of Building.

Subscribed and sworn to before me this 3d day of December, A. D. 1881. I have no interest whatever in the matter referred to.

[SEAL.] JOSEPH FORREST,
Notary Public.

[Title and venue.]

George K. Finckel, a citizen of Washington City, District aforesaid, being duly sworn, deposes and says as follows:

I have been chief clerk of the Quartermaster-General's Office and superintendent of the building since 1871. It has been part of my duty while occupying said position to supervise supplying said office and
217 building with chairs, and to see to the repairs of the same.

My attention was first called to the patented Gardner three-ply concave perforated veneer chair seats about six years ago by W. B. Moses, furniture dealer on Seventh street, city aforesaid, and on his recommendation purchased a number of said seats for use in the Quartermaster-General's Office, and have purchased them from time to time since, invariably selecting them in preference to all others on account of superior durability, comfort, and cheapness, and because they have much less tendency than

others to injure the clothing of those who use them. With few exceptions, these perforated seats are greatly preferred by those who use them in the Quartermaster-General's Office. I have no interest, directly or indirectly, in the above suit.

GEORGE K. FINCKEL.

Subscribed and sworn to before me this second day of December, A. D. 1881. I have no interest in the suit stated.

[SEAL.] JOSEPH FORREST,
Notary Public.

[Title and venue.]

William J. Warren, a citizen of said District, being duly sworn, deposes and says as follows:

I have been chief clerk of the Office of the Chief of Engineers, in United States Army, from July 1st, 1871, to the present time. During this time I have had immediate charge of purchasing chairs, etc., for said office. The Gardner patented three-ply concave perforated veneer chair seats have been purchased from time to time during the past five or six
218 years, and have given satisfaction as regards comfort, durability, and economy. I much prefer them to the cane seat chair. I have no interest whatever, directly or indirectly, in the above suit.

WM. J. WARREN.

Subscribed and sworn to before me this 2d day of December, 1881, and I have no interest in the matter in controversy in said suit.

[SEAL.] JOSEPH FORREST,
Notary Public.

[Title and venue.]

John W. Hogg, a citizen of Washington City, D. C., being duly sworn, deposes and says:

During my term of service of several years as superintendent of the Navy Department building, and of five years as chief clerk of the Navy Department, although I have had but little experience with the patented Gardner three-ply concave perforated veneer chair seats, several of them only having been furnished as samples and purchased, I am of opinion that they are very durable and that they possess qualities which make them economical and valuable for office use. I have no interest in the above-entitled cause, directly or indirectly.

JNO. W. HOGG.

Subscribed and sworn to before me this 6th day of December, 1881. I have no interest in the above-entitled cause.

[SEAL.] JOSEPH FORREST,
Notary Public.

219 [Title and venue.]

J. R. Van Wormer, resident of Washington City, District of Columbia, being duly sworn, deposes and says:

I hold the position of chief clerk, Post-Office Department of the United States. The patented Gardner three-ply concave perforated veneer chair seats have been used in this Department for several years past. They are considered an excellent article, cheap and durable, and give entire satisfaction. I have no interest in the above-entitled cause, directly or indirectly.

JNO. R. VAN WORMER.

Subscribed and sworn to before me this 6th day of December, 1881. I have no interest in above-entitled cause.

[SEAL.] JOSEPH FORREST,
Notary Public.

[Title and venue.]

George M. Lockwood, residing in Washington City, D. C., being duly sworn, deposes and says:

I have occupied the position of chief clerk and superintendent of the Department of the Interior of the United States for nearly five years past.

I have had the supervision of purchases of chairs and of the repairs thereof, in the Secretary's office, by virtue of said position. During my
220 term of office, a quantity of the patented Gardner three-ply concave perforated veneer seats have been purchased from time to time, and have given satisfaction by reason of durability and economy. They meet with general approval as far as has come under my observation.

I have no interest, directly or indirectly, in the above-entitled cause.

GEO. M. LOCKWOOD,
Chief Clerk and Sup't Dep't of the Interior.

Subscribed and sworn to before me this 5th day of December, A. D. 1881.

[SEAL.] JOSEPH FORREST,
Notary Public.

[Title and venue.]

C. W. Holcomb, residing at Washington City, District of Columbia, being duly sworn, deposes and says:

I occupy the position of chief clerk to the Commissioner of the General Land Office of the United States. The patented Gardner three-ply concave perforated veneer chair seats have been used in the General Land Office for several years last past, and have proved satisfactory. They are cheap and durable, and do not wear out the clothing as the cane seats do, and are considered much superior to the cane seats.

I have no interest in the above-entitled cause, directly or indirectly.

C. W. HOLCOMB.

Subscribed and sworn to before me, this 6th day of December, A. D. 1881. I have no interest in said cause.

[SEAL.] JOSEPH FORREST,
Notary Public.

221 [Title and venue.]

Ezra L. Stevens, a citizen of Washington, Dist. of Col., being duly sworn, deposes and says:

I am chief clerk to the Commissioner of Indian Affairs, Interior Department of the United States. The patented Gardner three-ply concave perforated veneer chair seats have been used in the Bureau of Indian Affairs for several years past, and have given general satisfaction. They are superior in the qualities of cheapness, durability, and comfort, and do not sag, nor injure the clothing like cane seats. As fast as cane seats wear out they are replaced by my direction by the above-stated Gardner perforated veneer seats, on account of the excellent qualities possessed as above stated.

I have no interest, directly or indirectly, in the above-entitled cause.

E. L. STEVENS,
Chief Clerk.

Subscribed and sworn to before me this 5th day of December, A. D. 1881. I have no interest in said suit.

[SEAL.] JOSEPH FORREST,
Notary Public.

[Title and venue.]

Malcom Seaton, a citizen of Washington City, District aforesaid, being duly sworn, deposes and says, as follows:

I have occupied the position of chief clerk of the United States Patent Office from July, 1880, to the present time, and was an assistant examiner in said office for several years prior thereto. All orders for chairs,
222 chair seats, and repairs of chairs pass through my hands. During my term of service as chief clerk, the Patent Office has had occasion to purchase many of the patented Gardner three-ply concave perforated veneer chair seats, and the same have given satisfaction. As a matter of economy and durability they surpass any other chair seats which have come under my supervision.

For several years previous to my taking the position of chief clerk aforesaid, the above-stated patented chair seats were purchased by my predecessor in office from Gardner & Co., patentees and sole manufacturers of perforated veneer seats, etc., 183 Canal street, New York City. I have no interest, directly or indirectly, in the above suit.

MALCOLM SEATON,
Chief Clerk Patent Office.

Subscribed and sworn to before me this 2d day of December, A. D. 1881. I have no interest in the suit stated.

[SEAL.] JOSEPH FORREST,
Notary Public.

[Title and venue.]

Raphael P. Thian, a citizen of said district, being duly sworn, deposes and says:

I have been chief clerk of the Adjutant-General's Office, War Department of the United States, for the past ten years.

Per'orated three-ply concave veneer chair seats have been in use in the Adjutant-General's Office for several years past, being preferred for superior durability and comfort, and because they do not sag like cane seats.

Whenever chair seats need repairs or renewing, it has been and
223 still is the uniform practice to substitute the said perforated veneer seats in lieu of cane seats.

I have no interest in the above suit, directly or indirectly.

R. P. THIAN.

Subscribed and sworn to before me this Dec. 2d, 1881. And I certify that I have no interest in the above-stated suit, directly or indirectly.

[SEAL.] JOSEPH FORREST,
Notary Public.

[Title and venue.]

Samuel Mulliken, a resident of Washington City, D. C., being duly sworn, deposes and says, as follows:

During my connection with the Department of Justice, I have for several years had occasion to purchase chairs and settees for the Department, and also to have repaired cane-seated chairs. I consider for office purposes the Gardner perforated three-ply concaved veneered seats the best article for that purpose I have yet seen. The said perforated furniture is in general use in the Department.

I have no interest.

SAM. MULLIKEN,
Chief Clerk Department of Justice.

Subscribed and sworn to before me this 6th day of December, 1881, and I have no interest in the matter in controversy in said suit.

[SEAL.] JOSEPH FORREST,
Notary Public.

224 NEW YORK, *Nov.* 21, 1881.

Present: Counsel for respective parties.

SAMUEL P. KITTLE, a witness called in behalf of the complainant', having been duly cautioned and sworn, and being examined by complainants' counsel, testifies as follows:

Q. 1. What is your name, age, residence, and occupation?

A. Samuel P. Kittle. I am fifty-six years of age, reside in the city of New York, and am a mechanician and expert in patent cases.

Q. 2. Please state what, if any, theoretical or practical acquaintance you have had with the mechanic arts, including furniture and cabinet-making.

A. Practically from my youth I have been engaged in mechanical pursuits. I served an apprenticeship to the carpenter and joiner trades, and afterwards worked practically at the same. I have designed, constructed, and run wood-working machinery, and have manufactured doors,

sashes, blinds, mouldings, &c.; also constructed door-fastenings, railroad head-rests, candle-moulding machines, spring mattrasses and spiral springs, among other things. From boyhood to the present time I have been engaged in the study of mechanics and the mechanic arts. I received an academic education, and while obtaining the same received instruction in natural philosophy, mechanics, and the mechanic arts. I at one time intended to follow the profession of architecture, and pursued the studies necessary for that end. I was for several years a solicitor of patents. I have been an inventor, and have taken out patents for inventions of my own. For the past thirty years I have been frequently consulted as a mechanician by others as to new inventions and mechanical questions.

From 1859 to about 1879 I was a manufacturer of, and whole-
225 sale and retail dealer in, beds and bedding in the city of New York. This business brought me in close relation to the furniture and chair business, and made me familiar with most of the improvements brought out in the furniture and chair trade.

Q. 3. What experience have you had in testifying as an expert in patent cases?

A. I have had a large experience as mechanical expert in cases pending in the circuit court of the United States for the southern, northern, and eastern districts of New York, eastern district of Pennsylvania, eastern district of Michigan, and the district of Massachusetts, and also in interference cases pending in the United States Patent Office.

Q. 4. Have you read and do you understand the reissue letters patent of the United States, granted to Oliver L. Gardner and others, dated February 24, 1880, No. 9094, a certified copy of which is marked in this case, "Complainants' Exhibit Gardner Reissue?"

A. I have read said patent and believe that I understand it.

Q. 5. Please state what is the invention described in said patent as the invention of George Gardner.

A. The invention described is a chair seat as a new article of manufacture, and is distinguished by being made of three scales of wood of veneers glued together, the grains of each crossing the next, and pressed into concave form on the upper side and into convex form on the under side, and having perforations, and adapted to a chair seat frame.

Q. 6. Please state in detail the advantage arising from the different elements composing said invention.

A. The material used by Gardner, veneers of wood, has many advantages when combined in the manner described in his said reissue patent, as it must appear when the fact is recalled that wood is cellular, open and absorbent between its fibres and grains, and greatly affected by damp-
226 ness, dryness, and heat; and being cellular and porous it is compressible flatwise or across the grains, but has great resisting strength and tenacity in the direction of or endwise of the grains.

A single veneer exposed to the action of the atmosphere warps or curls up and checks or splits quickly, and two veneers glued together with grains crossing will curl up considerably by the top exposure, springing the lower one in the direction of its grains; but by gluing three veneers together with the grain of the middle one crossing the grains of the outer ones, the warping or curling effect of the outer veneer counteract on the middle one, and materially diminish said warping or curling evil; and, besides,

the application of the heated liquid glue which enters the cells or pores tends to soften and make pliable the veneers, expanding and opening the cells or pores on all the adjacent or glued sides, filling the same with hot glue so that when these cross layers are subjected to the cauls and pressure the parts glued are forced more or less into each other, fibres and grains crossing fibres and grains, and interlocking with each other, and the cells and interstices being forced down and pressed together, thus unifying the whole and supplying the endwise strength of the material in all directions, so that once the glue has set and hardened all further liability to checking and splitting is substantially removed; and besides the glued and consolidated surfaces are doubly shielded from the action of the atmosphere by the fixed consolidation and the outer veneers.

This seat has the greatest economy of material, and it is thin, elastic, and light, and strong and durable, not liable to check or split, and is susceptible of a high finish as well as ornamentation.

The concave-convex form of this seat is an element the functions of which are very important, because they add in an important de-
227 degree and in several ways to the utility of the seat: First, in adapting the seat to the person of the user, enlarging the supporting surface, and so supplying a more comfortable sitting; and, second, in giving a form which effectually prevents the user from continually sliding forward on the seat, as is almost unavoidable in the straight, smooth chair seat; third, in affording a bracing relation of the grains and fibres in the several veneers to and among each other in new, broadened, extended, and arched directions in the concavity and convexity of the seat, so that they exert new and greater supporting strength as well as new force and resisting power against curling and warping; and, fourth, in imparting the important commercial and economic advantage to the seat of giving it increased resistance against warping and curling as is demonstrated by the specimens I now produce, marked, respectively, "Complainants' Exhibit Kittle No. 1" and "Complainants' Exhibit Kittle No. 2." The Exhibit Kittle No. 1 represents the Gardner material which has assumed by the action of the atmosphere a warped and twisted form. Exhibit Kittle No. 2 represents the like material with the Gardner concavity and convexity which have counteracted to a considerable extent this tendency to warp and twist.

The perforations are of great value and importance: First, as a means of admitting circulation of air; second, as removing unnecessary weight without materially diminishing the strength or durability of the seat; third, as furnishing an inexpensive and effective means of ornamentation; fourth, as an additional protection against warping and curling of the material, as can be seen by comparing the specimen I now produce, marked "Complainants' Exhibit Kittle No. 3," which is a seat composed of the Gardner material and made concave and convex, and per-
228 forated, with said Complainants' Exhibit Kittle No. 2; and, fifth, as a standing protection against water remaining on the seat in case water should be spilled on it.

(Complainants' counsel puts in evidence the three specimens referred to by the witness, and they are marked with the initials of the examiner.)

Q. 7. Please state how, if at all, the elements composing the Gardner seat co-operate with one another.

A. The said elements co-operate with one another. The three veneers glued together with their grains crossing, furnish the material out of which the seat can be made, and also serve to fix and preserve the concavity and convexity that are given to the seat; this latter effect is peculiar to the said veneers, as I have before stated when speaking of their resistance to curling and warping; the concavity and convexity strengthen the seat by disposing most of its surface in the form of an arch, and at the same time give greater area to the seat proper and thus allow a greater field for perforation, a desirable feature, and the concavity with the perforations make the seat marketable, as they unitedly add to the beauty of its appearance and materially prevent its twisting and warping before it is secured to the seat frame; the perforations aid the concavity in so resisting warping and twisting of the material, and unite with it in giving the seat a handsome appearance; without the perforations, water falling on the seat would be held in the concavity and thereby soften the glue that unites the veneers and destroy the seat; the perforations prevent this occurrence by affording ample means for the water to run off.

Adjourned to 22d inst., at 11 a. m.

229 NEW YORK, *Nov.* 22, 1881—11 a. m.

Present: Counsel for respective parties.

The witness, Mr. Kittle, being further examined by complainants' counsel, testifies:

Q. 8. What can you say as to the advantages arising from the said Gardner seat being adapted to chair frames?

A. This adaptability gives it a great commercial value because it can be sold separate from the chairs to which it can be applied. It has only to be trimmed at the edges to conform to the outline of the seat frame to which it is to be attached which does not require special skill; besides, it is capable of being secured to any seat frame in a simple manner by any one.

Q. 9. Please state what knowledge you have concerning the value of the Gardner seat.

A. I remember well the first introduction of the Gardner seat, and that it was favorably regarded by most of the scrutinizing trade; that it was talked of as a good seat and as one that would be likely to have a large sale, and be substituted for cane and other seats. I bought a fine arm-chair with a Gardner seat over eight years ago and have had it in my house in constant use ever since, and it is now apparently as good as new. About the time I bought that chair I purchased ten high-priced cane-seat dining-chairs, and although their usage was less severe than the arm chairs, they commenced giving out four or five years ago, when I purchased cushions to improve their appearance and protect them from wear; nevertheless some of them had to be set aside two or three years ago on account of the cane giving away. During the present year I have re-
seated all those cane seats with the Gardner seat. My experience
230 has been that it is a little trouble to fit and nail on a Gardner seat, and that when this is done the chair is materially stiffened and strengthened thereby.

Q. 10. Have you read and do you understand the letters patent of the

United States granted to George Gardner and Gardner and Gardner, dated May 21, 1872, No. 127045, being the original of said letters patent No. 9094, a certified copy of which original letters patent is marked "Defendants' Exhibit Gardner Original Patent?"

A. I have read said original patent and believe that I understand the same.

Q. 11. Have you examined and do you understand a certified duplicate of the model filed in the Patent Office in the matter of the said original Gardner patent No. 127045, which duplicate model is marked "Complainants' Exhibit Gardner Model?"

A. I have examined said duplicate model and understand it.

Q. 12. Please state whether or not you find shown in said original patent to Gardner No. 127045, and said certified duplicate model, the invention set forth in said reissue 9094 and specified in the claims thereof.

A. I do; I find described and shown in said original patent a chair seat composed of three layers of veneer with the grain of each crossing the next and glued together, which seat is made concave on its upper surface, and convex on the lower surface, and is also perforated, and adapted to a chair seat frame. The said duplicate model also shows the same construction of a chair seat.

Q. 13. Have you read and do you understand the letters patent of the United States granted to John H. Belter, dated February 23, 1858, and numbered 19405, a certified copy of which is marked "Def'ts' Exhibit Belter Patent?"

231 A. I have read said patent and believe that I understand the same.

Q. 14. Please state succinctly what is the invention described in said Belter patent.

A. The inventor, Belter, states that his invention refers to what is termed pressed work furniture, composed of layers of veneers glued together, the grain of one veneer running crosswise of the next. He also states that the object of his invention is to so make such pressed work that it shall have a dishing form. In carrying out his invention, he makes what he calls compound staves of veneers by taking a long strip of veneer and glueing to it small, short pieces of veneers, the grain of which runs crosswise of the grain of the long strip. Three or four courses of such compound staves are laid over each other around a barrel-shaped centre caul and glued together, the joints in each course coming opposite the staves in the inner course. The courses are pressed by outside cauls, and receive a concave form on the inside from the pressure. This pressure unites all the staves into barrel-form, and on removing the centre caul the staves thus formed and united are laid out and sawed into chair backs.

Q. 15. Please compare the chair backs described in the said Belter patent with the invention specified in the first claim of the said Gardner reissue No. 9094.

A. The Belter chair back is a thick, rigid concave of varying curvature at different points at its cross-section. The Gardner seat is thin, dishing and of regular concave form, with a flexible margin to adapt it to a seat frame.

The Belter back must have thickness and strength sufficient to admit of any desired carving and trimming without materially impairing its strength

for the purposes of a chair back complete in itself, which may be set vertically in a mortise in the back of a seat frame, or otherwise firmly fixed in such relation to the seat, and so formed as to complete the chair back and back frame.

232 The Gardner seat requires no such thickness for any purpose, and is always flatly applied to a rigid seat frame, to which it is firmly secured all around its margin to support it in use, and the Gardner seat must be made with an outer margin which will adapt it to any seat frame, and the thinner it can be and have the requisite strength the better, as it is more adaptable and more readily cut and trimmed in its outline to conform to the shape of the seat frame to which it is applied and secured.

The Gardner seat has such concavity as to afford a comfortable seat and yet be adapted to any seat frame. The Belter chair back is of such concavity as to fit the back, and is not adapted to any seat or back frame, and could not, like the Gardner seat, be applied readily to a chair-seat frame by simple edge trimming and secured as the Gardner seat is.

The Belter chair back not being adapted to any frame it could not be applied to a seat frame without being differently formed and trimmed on both sides and edges, and if laid (like the Gardner seat) flat on the seat frame of any known chair it could not be sprung down or nailed flat like the Gardner seat; but, supposing it could be, it would lose its concavity and present a thick, awkward, board-like edge above the frame, which would make it worthless for that purpose.

The Gardner seat is valuable because, among other things, it is made so it can be sold separate from the seat frame and to any form to which it is adapted, and readily applied by any one. The Belter chair back has no value for such purposes, because it is not adapted to such uses, nor capable of such application.

The Gardner seat is made of three veneers of wood glued together with grains crossing, pressed concave on the top and convex on the bottom, and adapted to a chair-seat frame. The Belter chair back is of six or

233 eight veneers of wood glued together with grains crossing, of irregular concave, adapted to deep carving and to be finished a complete back and frame in itself, to be fixed in or on the back of the seat frame, on which it stands vertically.

Q. 16. Please examine the Def'ts' Exhibit Photograph Belter Model, and, assuming that the finished chair back shown thereon was constructed of veneers as described in the said Belter patent, state whether or not you would find shown in said chair back the chair seat described in said Gardner reissue No. 9094.

A. I would not find the Gardner seat in said chair back. This chair back is a most expensive piece of carving, with a plain, solid, oval centre; it is necessarily quite thick to admit of the open and deep floral and volute carving, and the rounded and ornamented frame-like band; the open carving between the band and the oval centre materially weakens the back in this part, but as the outer band receives and sustains the principal pressure of the back of one sitting in the chair it does not require very great strength inside of the band for the purposes of a chair back; but were it to be subjected to the service of a chair seat it would be sure to break away at that part, and, besides, it would be most uncomfortable to sit on. The large open spaces in this chair back are made for the relief of the ornamental

carving, and not like the little round holes in the Gardner seat arranged in relation to each other as the means of ornamentation, ventilation, and lightening the seat, also to prevent water remaining in the concavity of the seat. The open spaces in the chair back are incidental to the ornamentation; the perforations in the Gardner seat are the means of ornamentation besides performing other valuable functions.

I think the comparison of the chair back described in the Belter patent with the chair seat described in the Gardner patent, given in my last answer, applies fully as a further answer to this question.

234 The chair back shown in the Belter photograph is not perforated in any proper sense of the term, nor in the sense of the Gardner reissue No. 9094. The carving shown on that chair back is the usual carving long employed in furniture of many classes, and is simply made for the purpose of ornamentation. It is to be found in looking-glass and picture-frames, book-cases and different frame work. If the Gardner seat were so carved it would be absolutely worthless, for the reason that the carving would so weaken the seat as to cause it to break soon after use.

Q. 17. Please compare the chair back of the chair marked "Def'ts' Exhibit Baillie Chair with the seat described in the Gardner Reissue No. 9094, and state what substantial differences you find between them.

A. Said chair back is an open carving or carved scroll-work fixed in the back frame of a chair, which back requires considerable thickness to display the carving, and as its members are volute and slender with large spaces, extra strength of material is required, which is secured by gluing several layers of veneers, thin strips or boards together, with grains crossing and giving the back a transverse curvature and an outline to adapt it to the chair back frame for which it is made.

Such chair backs could not be applied to the back frames of chairs promiscuously or of other shapes than such as they were made for, much less to chair-seat frames for which they were never intended and are wholly unadapted, and if the chair-back frame or a part of it, as suggested by Mr. Hyde in his 39th and 100th answer, were taken with the back, that would only increase the inadaptability; but, if by ingenuity and skill such a back were properly fitted and secured to a seat frame in some inconceivable way, it would not be strong enough to sustain the weight required in a seat. But suppose it were strengthened by additional layers which

235 would make it thicker and more clumsy, yet it would be worthless for that purpose, in consequence of the character of the surface (the cutting and carving). The Baillie back is right and strong enough for leaning the back against, and not specially uncomfortable, as its supporting chair-back frame mainly sustains the bearing weight, but worthless for a seat. Nor could the Gardner chair seat be advantageously used for a Baillie chair back; it has not the requisite thickness for the carving, and if it were ornamented by such scroll-work without the carving, it would be too frail and flexible for even a chair back; besides the free ends in the scroll-cutting being so thin they would curl in different directions and catch the clothing, and the veneers would most likely separate.

Although there is similarity in the material composing the Baillie back and the Gardner seat, yet they are for entirely different purposes. The Baillie back requires considerable thickness of material and comparatively little supporting strength; Gardner, the least thickness possible and the

greatest strength. The Baillie back has a cylindrical concave form, and the Gardner seat has a dishing concave; the Baillie chair back has no flexible margin; the Gardner seat has a liberal flexible margin to adapt the seat to various seat frames. The Baillie chair back has an open scroll, deep, irregular and curved surface. The Gardner seat has comparatively small and round perforations, and a smooth, dishing surface. The Gardner seat is ornamented by the arrangement of round perforations, and the Baillie chair back is ornamented by scroll-work deeply carved.

The Gardner seat is secured flat down on the chair-seat frame, being confined to the outline of the seat frame by edge-cutting or trimming only.

236 The Baillie chair back could not be so applied or fitted; it would have to be fitted on its face and back and edges, and have a seat frame made expressly for it besides, in every case. Gardner seats are complete in themselves, and capable of being sold in packages ready for use. The Baillie back is only valuable when fixed in the back frame of the chair for which it is made, and with which only it could be sold practically.

Q. 18. What can you say as to the answer of the defendants' expert, Hyde, to the forty-first question put to him?

A. I have carefully read said answer and think that Mr. Hyde should have found that the seat frame of an ordinary chair was the main frame of the chair into which the legs are secured, and on to which the back frame is fastened, and also on which the seat rests; that in fact it is the seat frame which unites all parts of the chair and gives it stability; while the function of a chair-back frame of the Baillie chair was in part to support the carved centre and to sustain the slight leaning pressure of the person whose main weight rested on the seat which was secured to the seat frame. The Baillie chair-back frame supports the scroll or carved centre, while the seat frame secures together in it the four legs of the chair and supports the Baillie or any other back frame and all that pertains to it, also the seat and the person sitting on it. It seems to me there is a wide difference in the functions and in the operation too.

Q. 19. What can you say as to the answers of the defendants' expert, Hyde, to the forty-sixth, forty-seventh, forty-eighth, forty-ninth, and ninety-eigth questions put to him?

A. I have very carefully read said answer. As to Mr. Hyde's imaginary transposition of the scroll-cut and deeply-carved frail Baillie chair-back centre into an actual seat, equal to and embodying the Gardner invention, I can say that I am satisfied it could not be done successfully, not

237 even with the suggested peculiar seat frame "substantially like the frame round the panel of the back" of the Baillie chair. I am satisfied that such an adaptation would be ridiculous, very difficult, and absolutely futile for any practical result.

Q. 20. Have you read and do you understand Defendants' Exhibit Mayo Original? If so, please state what is the invention therein described.

A. I have read said patent and believe that I understand it. Said Mayo original patent set forth the invention of a new material for structures of different kinds. This material consists of a plurality of veneers with the grains running crosswise and cemented together. Mayo names numerous articles which may be constructed of such material; and among

other things he says that such material forms "a firm material" for "covering of beds, sofa and sofa-bedsteads, divans, lounges, chairs, and settees." This is the only reference he makes to chairs, and then he refers to the material as only a covering for chairs. As I understand, by the term "chairs" he means seat frames with seats. Hence he proposes to employ said material as a covering for chairs in the same sense that he intends to apply it to "beds, sofa and sofa-bedsteads, divans, lounges," that is, as a covering for those articles.

Q. 21. Have you read and do you understand Defendants' Exhibit Mayo Reissue Patent?

A. I have read said patent and believe that I understand the same.

Q. 22. Please compare the chairs described in said Mayo reissue with the invention specified in the first claim of the Gardner Reissue No. 9094.

A. The chair seat and back (Fig. 2 of the Mayo Reissue Patent) appear to be one continuous piece extending from the front of the seat frame to and over the top of the back frame, and it is shown as crowning or of convex upper surface on the back and also on the seat of the chair. In
238 the above particulars the Mayo seat and back are materially different from the Gardner seat.

Mayo speaks of the chair bottom as made of flexible material; it is not concave; and he shows a chair bottom convex on its upper side which is continued into a convex chair back also.

Gardner shows and describes a chair seat having a concave upper surface for a special purpose.

Mayo does not show or describe a separate chair seat adapted to any chair-seat frame. Gardner shows and describes a chair seat adapted to every chair-seat frame, and marketable separate from the chair which it is to seat.

Q. 23. Have you read and do you understand Defendants' Exhibit Bramhill Patent, and have you examined Complainants' Exhibit Bramhill Seat?

A. I have read said Bramhill patent and understand the same, and I have also examined said model.

Q. 24. State whether or not the Bramhill seat is adapted to a seat frame as is the Gardner seat.

A. It is not; it cannot be glued to a seat frame as the Gardner seat can; and if nailed to a seat frame, as the Gardner seat can be, and then sat upon it would be sure to be torn off.

The Bramhill seat must have other and auxilliary means to practically adapt it to a seat frame, to wit, some clamping or binding process like that shown in the Bramhill patent and model, and not required in applying the Gardner seat.

Q. 24. Have you read and do you understand Def'ts' Exhibit Farmer Patent?

A. I have read said patent and believe I understand it.

Q. 24*b*. What can you say as to the answer of defendants' expert, Hyde, to the thirty-fifth question put to him?

239 A. I have carefully read said answer and can say that Mr. Hyde is mistaken in saying that the Farmer rawhide seat has concavity

and convexity; it is not so shown or described in the patent; but on the contrary it is shown perfectly straight and is described as stretched on the seat frame and secured in that condition. Owing to the well-known nature of rawhide no one would think of stretching it without first wetting it; indeed, the inventor's instructions are to wet it even before embossing; having been wet it may be stretched on the seat frame; but rawhide contracts powerfully in drying, and if the fastening holds there would be no concavity; if it give way, as most likely it would, the seat would not get the concavity from use; as to the elasticity of such a sheet of rawhide practically there would be none while dry.

The Farmer seat is made separate from the seat frame, but it could not be sold separate for application and use as the Gardner seat, but must be applied while damp, for were it not immediately stretched on its seat frame, after being cut out, it would contract and curl in all shapes, becoming hard and unmanageable like bone, and could not be sold for chair seats in such condition.

The Farmer seat is not adapted to chair-seat frames generally, like Gardner's is, but only to the seat frame for which it is made and to which it must be applied as soon as made, and with which it must be sold, if sold at all, while the opposite is true of the Gardner seat.

Q. 25. Have you read and do you understand the Def'ts' Exhibit Tice Patent?

A. I have read said patent and believe that I understand it.

Q. 26. What can you say as to the adaptability of the Tice metal seat to chair frames?

A. The Tice metal seat practically must be made for the seat
240 frame for which it is intended, and it is not practically adapted to any other. If it were sold separately from its special seat frame, to apply it to any other seat frame would require the employment of a metal worker to adapt and fit it by appropriate tools for cutting and shaping metal, and also to apply the edge binding or turn the edge of the seat to get rid of the sharp points that would be formed by such cutting.

If the Tice metal seat were made and finished with separate frames to put on the market that would make its adaptability to various seat frames still more difficult—only doubling the labor and making the application still more difficult.

The Tice seat in any case, if cut down or modified in its outline, would have to be rebound or turned, as the raw edges would catch in the clothing in use.

Adjourned to Dec. 5, 1881, at 11 a. m.

NEW YORK, *Dec.* 5, 1881.

Present: Counsel for respective parties.

The witness, S. P. Kittle, being cross-examined by Mr. JAMES P. FOSTER, testifies as follows:

X Q. 27. Please state in detail each and every element shown or described in the Gardner second reissue sued upon, No. 9094, irrespective of the claims.

A. A chair seat made of three veneers of wood glued together with their grains crossing, being concave on the upper side and convex on the under side, and adapted to chair-seat frames and perforated with holes

which are capable of being arranged for ornamentation, and the same being capable of ready application to a chair seat frame by unskilled hands.

X Q. 28. Do you find in the second reissue 9094 all of the elements specified in your last answer?

241 A. I think so.

X Q. 29. Please point out the paragraph in this reissue which alludes to the chair seat "being capable of ready application to a chair seat frame by unskilled hands."

A. In the fourth paragraph of the patent, the last part of the paragraph I quote, "And the seat is adapted to be secured to any chair frame, as it is easily cut and fitted to the same." I also refer you for one manner of attaching the seat to the chair-seat frame to the illustrations or drawings. I further quote from the ninety-first line of the patent, "The edges of the seat rest upon and are secured to the chair frame."

X Q. 30. Is it your opinion that these words from the patent specify or mean to specify an element of invention?

A. I think so.

X Q. 31. And in your judgment these words quoted by you from the patent specify the element particularly, that unskilled labor can adapt the seat to the frame; is that true?

A. The references I have made are sufficient, I think, to indicate that the construction of seat described in the patent is such that it is first adaptable to various forms of seat frames; and secondly, that it is very readily and easily applied by any one, having only to be trimmed on the edge and secured in any manner.

X Q. 32. What would you say if chair seats similar to the one described in this patent were made in such a way or of such wood veneers that it required skilled labor to attach them to the chair-seat frame? Would such seats infringe this Gardner second reissue, No. 9094?

A. I should say that one of the elements of value in the Gardner seat would not be found in the seat supposed in the question. I should not be prepared to say that such a seat did not infringe the Gardner patent.

242 X Q. 33. Why would you not be prepared to make that statement?

A. Because there are other elements than that in the patent.

X Q. 34. My question assumed that all the other elements existed in the supposed chair seat, but that to practically apply it would require skilled labor. Please answer with this assumption, irrespective of the claims of the patent.

A. Such a seat would be a different seat from the Gardner seat, in my opinion, as the Gardner seat, as I understand it, has the capacity, with the other elements of value, of adaptability to varied seat frames, and that it is so easily applied by simply conforming its outline or edges that it would not require the kind of labor suggested by the question, and that is one of its characteristics of value.

X Q. 35. Please explain what the words in the sixty-seventh line quoted by you, to wit, "the seat as adapted," mean. When—at what time—is the seat adapted?

A. It means, in my opinion, that that seat, to wit, the Gardner seat, having the other elements previously referred to, when manufactured or finished is complete, and without reference to the chair on to which it is to

be secured, and in its character and construction is adapted or ready to be applied to various or different chair seats, such as may have different outlines, and that the seat is so adapted to any chair-seat frame that it may be applied in different manners, or by different means, by simply cutting and trimming its outline or edge as shall be desired to conform it thereby to the seat frame on which it is to be used.

X Q. 36. Suppose the Gardner seat, when it comes from the last workman's hands, was of that form on its outline that there was nothing more to be done to it except to nail it to the seat frame; would such a
243 seat come within the word "adapted," in your definition thereof?

A. Yes.

X Q. 37. Am I correct or not in my understanding of your definition of the word "adapted," namely, that the seat requires more or less trimming of its edges to conform it to the outline of the chair-seat frame?

A. I think it usually would, but not in such a case as you suppose in your last previous question. Yes, as I mean to be understood, the adaptation referred to in the patent inheres in the construction of the Gardner seat, irrespective of the outline or edge trimming; that is to say, the seat is so made that it will lie flat on the seat frame or in a rabbet therein, if it is desired to connect it by means of a rabbet, the seat not requiring any face or flatways fitting.

X Q. 38. If the seat requires trimming or cutting in order to fit it upon the chair-seat frame or on to the rabbet therein, is it or is it not, before it is so cut and fitted, adapted to a chair frame?

A. It is adapted to a chair-seat frame, as I have before stated, before the edge-cutting takes place, but not fitted.

X Q. 39. Is it at that time, before the cutting or fitting, adapted to a chair frame?

A. Yes; I suppose you mean a chair-seat frame, of course.

X Q. 40. If the seat is made in a square, and the seat frame is a square of the same size, and there is no cutting or fitting of any kind, I understand your definition of the word "adapted" not to include such a seat.

A. I don't know why you should; I have stated the contrary in one of the answers above, and I do not wish so to be understood, but instead that in the case supposed it would not only be adapted but fitted to
244 such a seat frame; and, further, such a seat as supposed would be adapted to a different size or shape seat frame than the one supposed in the question.

X Q. 41. How many elements are there in the Gardner alleged invention?

A. There is the element of the material; the element of concavity and convexity; the element of adaptability; the element of perforation—being four.

X Q. 42. Please state which of these elements you find in the first claim, and which in the second claim of the patent sued on.

A. I find the material, concavity, convexity, adaptability to chair-seat frames in the first claim, and the material, concavity, convexity, and the perforations in the second claim.

X Q. 43. There are then three elements combined in the first claim and three elements combined in the second claim, are there?

A. Yes; and I think that the element of adaptability is virtually

found in the second claim, though not mentioned; it is included by the words, "as a new article of manufacture substantially as set forth."

X Q. 44. The element of adaptability is then found in the second claim more through inference and in these general words of description than by any clear statement or precise word in that claim; is that true?

A. It is found through these general words quoted by me, and is not specially enumerated as in the first claim.

X Q. 45. Look at the first claim of the patent sued on and state what element is omitted from that claim.

A. The element of perforation is not in that claim.

X Q. 46. Is the element of perforations excluded from the first claim?

A. I think so.

X Q. 47. Is it not included in the words, "as a new article of manufacture, a chair seat, substantially as set forth," in the same manner
245 that the element of adaptability is included in the second claim through those words?

A. I think not; because the adaptability is given with the concavity and convexity in the manufacture of the seat of such material as I understand it, and the seat is a complete and perfect seat without the perforations, though not so perfect as with.

X Q. 48. Is the adaptability given to the seat with its concavity as a necessary result of the material used?

A. No; the adaptability is given with the concavity and convexity in the material used.

X Q. 49. Is it the concavity and convexity which makes the Gardner seat adapted to the uses of a chair seat, or is it the material?

A. It is both.

X Q. 50. Do you seriously contend that without the concavity or convexity there would be no adaptability in the use of the chair seat?

A. No; it would be an inferior and different seat, however, from the Gardner seat.

X Q. 51. Isn't it true that the Gardner seat is adapted to the uses of a chair seat almost exclusively for the reason that the material employed is capable of being so used with greater ease than many other materials, and this fact is the foundation of the Gardner seat being adapted to the uses of a chair seat?

A. The material employed by Gardner is very valuable as an element in his seat; but the concavity and convexity imparted to it by Gardner, and the adaptability to seat frame in connection with the concavity and convexity makes it the Gardner seat.

X Q. 52. It seems to me that in the patent 9094 the word "adapted" refers exclusively to the material used, for the reason, as is stated in the patent, "it is easily cut and fitted;" and again, it is said, edges of the seat rest upon shoulders. Am I correct?

246 A. I think not; I think the words "as it is easily cut and fitted to the same," refer to the material, as left outside of the concavity and convexity; and further it is clear enough, it seems to me, that were there not a margin outside the concavity and convexity of the Gardner seat the adaptability might be seriously interfered with if not absolutely destroyed. Further, a plain piece of material, to wit, veneers glued together with their grains crossing would be adapted to a chair-seat frame;

but when you come to put the concavity and convexity into such material, if there were not special provisions for the purpose of making a seat having a concavity and convexity adapted to a seat frame, that adaptability that existed in the plain piece of such material would be destroyed or materially interfered with.

X Q. 53. What do you understand by dies, moulds, matrixes, formers, and cauls? Are they, in your opinion, such instruments or tools as perform substantially the same thing, and the Gardner seat pressed in any or either of them into a concavity would be the same sort of a seat?

A. Yes.

X Q. 54. Suppose that you knew and understood that three layers of veneer glued together, with their grains crossing, were pliable and useful for the uses of a chair seat, and that a concave chair seat was the most comfortable, and that veneers or wood in a concave form was much stronger and more durable than in a flat surface, what would the following words convey to your mind in relation to producing upon this material the concave form, to wit: "These veneers could, by the well-known process of wet and dry heating in course of manufacture, be brought to assume any desired form by compression in a matrix?"

A. I suppose they would convey to my mind that I must make
247 my formers or moulds in such a shape as that they would give the shape desired; and second, that I must resort to such well-known process of wet and dry heating to soften or limber the material, so as to facilitate the operation; and that I would depend upon my own ingenuity in seeing that the material operated upon, as well as the form of the moulds, was such as would successfully produce the result I sought to attain.

X Q. 55. Suppose you desire to produce concave-convex form in those veneers, would those words quoted by me direct you how to do it?

A. Yes.

X Q. 56. Would such words as the following also direct you how to produce concave-convex form in three-ply grain-crossing veneers, to wit: "Compress the veneers until cold between slightly-dishing cauls?" These words assume that either the cauls or the veneers have been previously warmed.

A. Yes; I think such words would lead one skilled in the treatment of veneers, as suggested, to form them into concavity and convexity of slightly dishing form.

X Q. 57. Does the Gardner seat come within the terms "slightly dishing form?"

A. Yes; and more besides.

X Q. 58. What is the more?

A. A concavity and convexity of dishing form, having a margin or upper plane adapted to a seat frame, and made of three veneers with the grains crossing for a special purpose, and capable of being readily trimmed and shaped to the seat frame.

X Q. 59. Do you make any distinction in the Gardner patents between the terms "dishing" and "concave?" If so, give it, and your reasons.

A. There is a difference between a cylindrical concave and a dishing concave. I think for the purposes of the present answers, I will confine myself to the dishing concave. A concave is simply a hollow; a convex, a hill; a dishing concave is something more, it is a hollow all around.

248 X Q. 60. Does the word "concave" include a "dishing concave?"

A. Not necessarily.

X Q. 61. Does it exclude the "dishing concave?"

A. No.

X Q. 62. Do you understand the claims of this Gardner second reissue in speaking of "concave on the upper surface of the seat" to include every form of a concavity?

A. No; only practical forms for the purposes intended.

X Q. 63. Does it include all practical forms?

A. I think that will be a question for the court, not for an expert.

X Q. 64. Is the exhibit Def'ts' Exhibit Gardner Yellow Chair one of those practicable concave forms included within the claims of the Gardner second reissue?

(Objected to as not alluded to in the direct and as irrelevant, and also because the witness is asked to construe the claims of a patent, a function which belong' exclusively to the court.)

A. The concavity of the exhibit resembles somewhat the concavity of Fig. 2 in the drawings of the Gardner reissue 9094, and not the dishing concavity. It does not illustrate or contain any dishing concavity. It would perform part of the functions of a dishing concavity, but not all. I think as to the balance of the question I will refer that to the court.

X Q. 66. Have you any doubt about the Gardner Yellow Chair Seat being included within the terms of the claims of the Gardner reissue 9094?

(Last objections repeated.)

A. I have, on account of the words in the specification, in the
249 45th line. I quote: "A concave or dishing form;" and further, in the 82d, "The seat is of a concave or dishing form so as to be better adapted to the shape of the person." I have no doubt that a concavity of dishing form is described by Gardner in the reissue 9094.

X Q. 67. Would or would not more than three layers of veneer glued together with their grains crossing be substantially the same material as that employed by Gardner in his patent?

A. I think not; I think Gardner has confined himself to three veneers glued together with the grains crossing. I refer you to the drawings, and also particularly to the description, commencing with the 76th line: "I have shown three layers of veneers, A, B, C. The grain of the veneer A crosses that of the veneer B, and the grain of the veneer B crosses that of the veneer C, and these are cemented together by suitable adhesive substance, such as glue." I find no intimation in the specification of any greater or less number of veneers than three.

X Q. 68. What must be the character of each layer of veneer according to the Gardner patent? Must each veneer be of the full size of the seat to be made, or can each layer be composed of small pieces of veneer?

A. I think that each layer is a veneer complete in itself of the full size of the seat frame to which it is to be applied, and not made of pieces of different breadths and different lengths glued together.

X Q. 69. Is your last answer especially true as regards the middle layer in the Gardner seat?

A. It is especially true as regards each of the three layers, for the reason, I think, where the layer is pieced instead of being entire in one veneer the joints would be opened, and in pressing the concave-convex form, and in so much the seat would open or be liable to be opened, insomuch the seat would be materially weakened and different from the construction illustrated and described in the Gardner patent.

250 X Q. 70. Suppose the centre layer was made of pieces of veneer and not of one layer of veneer the full size of the seat, is it your opinion that such a seat would or would not infringe the Gardner second reissue No. 9094?

(Objected to as asking the witness to answer a question of law and a hypothetical one at that.

Question withdrawn.)

X Q. 71. If the middle layer of veneer was not the full size of the seat, or if it were composed of several pieces, would it embody the invention described in said Gardner second reissue No. 9094, and specified in the claims thereof, and give your reasons for any opinion you give?

(Objected to as irrelevant.)

A. I think it would be different from the material described in the Gardner patent, particularly if the joining of such material endwise or edgewise came within the concavity of the seat; because in that case that part of the seat would be weakened insomuch as to have an open joint which would occur in putting in the concavity and convexity. As to whether this defect or difference would be sufficient to make the seat wholly different from that set out and claimed in the patent I leave to the court.

X Q. 72. I am asking for your opinion on the subject?

(Last objection repeated.)

A. I am satisfied that Gardner describes three and only three veneers with the grain of the centre veneer crossing the grain of the outside veneers; and I have not any doubt but that such a construction would

251 be within the Gardner patent. I know also it is common among constructors or manufacturers to cover up or hide from view defective and inferior material; and I have no doubt but that a seat made like Gardner's with the exception specified in the question would generally pass for the Gardner seat, and I am equally sure that such construction would materially interfere with the value and durability of that seat, and virtually it would be a different article.

Adjourned to Wednesday, December 7th, 1881, at 11 o'clock.

NEW YORK, *December* 7, 1881.

Met pursuant to adjournment.

Present: Counsel for the respective parties, as before.

Cross-examination of Samuel P. Kittle continued by Mr. FOSTER:

X Q. 73. You seem to qualify the last answer by the word "virtually." What is your unqualified opinion as to the layers of veneer in the Gardner seat being of one continuous whole piece?

A. The seat that Gardner describes and claims in his patent is made, I think, of three broad veneers, each layer one continuous sheet, the grain of the centre one crossing the grains of the outer veneers and glued to-

gether, concave on the upper side, convex on the lower, adapted to a chair seat, and perforated.

X Q. 74. Could you tell, by examining a completely finished Gardner seat when the layers are firmly glued together, whether or not the middle layer was or was not one continuous broad veneer?

A. I might be able to—I might not be; I think I could submit it to a test, whereby I would be able to tell.

252 X Q. 75. What test would you submit it to, in order to learn the fact inquired about?

A. Different degrees of strain on different lines would be one good test, I think; I don't know what other test I might submit it to, if that didn't develop the character of the inside layer.

X Q. 76. Would you be able, by the test just described by you, to pronounce, absolutely and unqualifiedly, the character of the middle layer?

A. I might and might not be.

X Q. 77. Would, in your judgment, any test except taking the veneers apart, absolutely and unqualifiedly disclose the character of the middle layer?

A. I think so; I might be able to tell, by looking at the edge of the seat, or merely bending the edge around, whether or not the centre veneer was pieced.

X Q. 78. This last test on the edge of the seat might be deceptive, because of a crack or split in the centre veneer, might it not?

A. It might be; it might not be.

X Q. 79. What do you understand to be the meaning among woodworkers, of the words "laminæ of wood?"

A. Thin layers, I suppose. It is not a term very much used, however, so far as my experience goes, among practical workers of wood at least.

X Q. 80. Would you use it in describing the veneers of the Gardner second reissue No. 9094?

A. I might, or might not. However, I should be likely to strive to use the most expressive language, and that which would be best understood. I think the word "veneers," or "thin scales," or "sheets" of wood would be quite as expressive in common parlance.

X Q. 81. If the Gardner seat were shown you and you were told that it consisted of "laminæ of veneers," would you from that word laminæ, or would you not without further explanation of the alleged Gardner invention, know and understand that each layer must be a full-sized and continuous sheet of veneer?

253 (Objected to as incompetent and inadmissible.)

A. I think so.

X Q. 82. Does the word "lamina" mean a full-sized and continuous scale or sheet of veneer, the full size of the Gardner seat, or is it like the word "layer," either a full-sized sheet or made up of pieces; and the meaning of the word in relation to the Gardner seat can only be ascertained by an examination of the Gardner patent 9094?

A. The first definition of lamina in Webster's Unabridged, which I hold in my hand, is: "A thin plate or scale; a layer or coat lying over another;" and, of course, from that definition I infer each layer would be a single veneer in distinction from one made up of several pieces.

X Q. 83. Look at Defendants' Exhibit Mayo Reissue Patent, and say

if the layers of veneer therein shown and described for the chair seat therein mentioned are broad, full-sized layers, as in the Gardner patent 9094, or if each layer is made up of pieces.

A. No, they are not full-sized, like Gardner's; but they are made up of pieces, to wit: "With several scales or thicknesses so placed that the joints (ends or edges) shall be broken by each alternate layer." The above quotation is from the second paragraph of the printed specification of Defendants' Exhibit Mayo Reissue.

X Q. 84. A chair seat, then, made *by* the material described in the Mayo reissue, as you understand that reissue, would differ materially from the Gardner seat in the particulars heretofore specified by you in relation to the material shown, described, and claimed in the Gardner second reissue No. 9094; is this true?

A. Yes, I mean to say that the Mayo material is made up differently from the Gardner material, I will illustrate my meaning by a
254 piece of material which I have had made up pursuant to the Mayo patent, and now produce, and request to have it marked.

(The piece referred to is marked "Complainants' Exhibit Mayo No. 3, J. D., Notary Public.")

X Q. 85. A chair seat, then, made of this Mayo material, but otherwise and in all other respects similar to the Gardner seat in relation to concavity, convexity, perforations, and adaptation, would not embody the invention set forth and claimed in the Gardner second reissue No. 9094, would it?

A. I think not; it would have all the characteristics of the Gardner seat except the material, which, I think, is so different and so worthless for the purposes of a chair seat that that would make it a substantially different article. Nevertheless I can see how this Mayo material might be made to assimilate to the material described by Gardner so nearly that the difference would not be substantial. If there were an actual case before me of such assimilation I might or might not then be able to determine positively without test; I do not think, however, that the Mayo material as described by him could be successfully employed for the purposes of chair seats like Gardner's.

X Q. 86. And for the reasons just given by you such a chair seat of the Mayo material would not embody the Gardner invention as set forth in the second reissue No. 9094?

(Objected to as incompetent and not alluded to in the direct, and as already answered.)

A. I have just qualified my last answer by stating that the Mayo material might be made to assimilate so closely the Gardner material as not to be substantially different. I made that statement in view of the fact that it is well known that things even wholly different in principle may be made to assimilate in character so nearly that it is difficult to tell
255 which is which. I have explained, I think, in my direct examination the action of the formers on the material after it has been subjected to the action of the hot glue, which was to spread and extend the material under pressure so that there would be no open points or separating of the solid veneer, and yet the concavity, convexity, and adaptation to the seat frame be of the required shape and depth. I do not think that the Mayo material as described could be successfully employed for the

same purpose and in the same manner as the Gardner material; I think the joints of that material, endwise and edgewise, however well and expensively fitted, would open in the cauls and under the press, and so materially and effectually deprive the seat of any value or utility.

X Q. 87. When, in constructing the Mayo material, does the assimilation to the Gardner material begin? Is the Exhibit Mayo No. 3 the only example of the Mayo material; if not, what other varieties under the Mayo reissue other than this exhibit do you find in that patent?

A. Another variety of the Mayo material is fairly represented by Complainants' Exhibit Mayo No. 2; still another variety would be of two layers, with grains crossing; another variety would be of two layers very thin, with grains crossing; another would be of three, four, five, or more layers, which would be fairly represented by table legs of Fig. 1 of Defendants' Exhibit Mayo Reissue; another variety would be where the layers were very thick, &c., &c. I think the two materials may be said to be alike or similar in using three veneers with their grains crossing; I mean three layers or thicknesses. In case the Mayo material should be made substantially without joints—either ends or edges—in all the three layers, then it would be substantially Gardner's material; if it should be made with joints and ends, and edges in each layer, then it would be
256 Mayo's material. At just the point of the commencement of assimilation you can find close to the line *of* decided distinction, and the line of greater similarity will be where it is difficult to tell which material it is, and the degrees of difference and similarity will be as you depart from the one and approach the other.

X Q. 88. When the Mayo material should have only two pieces in the layer, instead of one broad sheet, would that be Mayo's or Gardner's material?

A. If the two pieces should be joined so as to practically destroy the utility of the seat, I would call it Mayo's; if not, I would leave it to the court to determine.

X Q. 89. Where do you find in the Mayo reissue any description of such material as you have produced in Maye No. 3?

A. In the paragraph before quoted from by me. I will say in addition, for most if not all the purposes for which the material is specified as useful in the patent referred to the composition of material as described in the patent would be practical; for instance, for coverings or outside layers and for inside finish of houses, &c.

X Q. 90. Under what circumstances could the Gardner seat have more than one piece of veneer in the layer and still be Gardner's material?

A. I am unable to say at the present time that it would under any circumstances; I can conceive of slight modifications in that direction, where a strip on the edge might not materially detract from the value or utility of the seat in consequence of a narrow piecing of a layer.

X Q. 91. In the exhibit produced by you, Mayo No. 3, being about twenty-five inches long, you caused the workman to make the middle layer of nine strips of veneer, three or four of which were pieced. Is this exhibit with this number of strips an accurate representation of the Mayo
257 material, or would it represent that material quite as accurately if instead of nine strips there had been two or three strips for that layer?

A. I gave directions for the making of a piece of Mayo material of three layers; but not directions that there should be nine strips employed in the middle layer. As to the accuracy of two or three, instead of the nine, being equally as fair a representation of that material, I think it would not be; unless the outer layers were in more than one piece, and unless there were endjoinings or joints in each layer, because the direction is that the "joints (ends or edges) shall be broken by each alternate layer."

X Q. 92. Look at the answer of George Gardner, the inventor, in answer to 61st question of his examination, defendants' record, when he was examined on behalf of the defendant. Mr. Gardner uses the words in describing his invention, as follows: "They are made by putting in three veneers, with the grain of the middle one running crossways of the other two, with glue in between the joints." Does Gardner use any different expression in that respect from the Mayo reissue patent?

A. Yes; he does not say what Mayo says: "The joints (ends or edges) shall be broken by each alternate layer." Gardner says of his material or seats: "They are made by putting in three veneers, with the grain of the middle one running crossways of the other two, with glue in between the joints." Please emphasize "three veneers," "the middle one," and you will get my understanding of the Gardner material as made up of three veneers. As to the balance of the inquiry I think it is clear enough that Mr. Gardner means by the joints the faces or flat surfaces of the veneers which overlay each other and are glued together.

X Q. 93. Then, the true distinction between the Mayo material
258 and the Gardner material, as described by the inventor, is that each layer is one continuous sheet of veneer and so distinguished from the Mayo material, which is not so constructed. Is this also your opinion?

A. Yes.

X Q. 94. Do you know how veneers are cut?

A. Yes.

X Q. 95. Please describe the method.

A. They were formerly cut by saws like boards off a log; subsequently they were cut by steaming the log and by the employment of a long knife, shaving off the veneer from end to end by what is known as a drawing cut. Subsequent to that the knife was made stationary and the steam log revolved, cutting off the veneer like unwinding a ribbon, the knife and the log-centre being brought nearer together as the process went on.

X Q. 96. You have described three methods of cutting veneers; the two first would leave the veneer flat and long, and cut the whole length of the log, would they not?

A. Yes.

X Q. 97. Which way on the veneer would the grain run when cut by these methods?

A. Lengthwise of the veneer.

X Q. 98. How wide would the veneers cut by these two methods usually be?

A. They would be very variable; the width would depend upon the character of the log from which they were cut as well as upon the size, owing to the fact of the imperfection of the log, and to checks; very frequently it would make several pieces in one cut.

X Q. 99. Would the width of the widest veneer cut by these two methods be ten inches wide?

A. I think so and more too.

X Q. 100. How wide would the widest be, or the average of the widest veneers?

259 A. The average of the widest would probably be as much as ten inches.

X Q. 101. These veneers to make the Gardner seat cut by these methods would be cut in lengths to adapt them to the size of the chair seat to be made, I measure a Gardner seat, which is 17 inches from one side of the chair to the other and 16 from the front to the back. Could such size seats be made from veneers cut by these two methods, and have each layer one broad continuous sheet of veneer without piecing either layer?

A. Yes; I have frequently seen veneers cut by those methods eighteen and twenty inches broad, and even more, I think.

X Q. 102. How much more; what is the widest veneer cut by those methods?

A. I think I have seen veneers two feet broad cut by those methods.

X Q. 103. If the Gardner seat was to be thirty inches square, would the layers then be one continuous sheet if made of veneers cut by these two methods?

A. Not unless they had thirty-inch veneers.

X Q. 104. Are there any such size ordinary veneers cut by these methods?

A. Not that I remember of seeing.

X Q. 105. Now take the other third process; how long is the longest log known to you from which veneers are cut by revolving the log towards the knife?

A. I haven't changed my mind in that respect; I think, however, I have seen veneers cut in that way three or four feet broad or in the direction of the grain.

X Q. 106. When you attempt to make the Gardner material out of these veneers cut by the last process, the widest of which you say is about four feet, how would you make the Gardner material five feet wide, or five feet square, and have each layer one continuous piece?

260 A. I should cut the veneers into the size you want the seat and glue them together flatways as Gardner describes. I never have heard of a Gardner chair seat five feet square before. I think they average about fourteen to sixteen inches square. I don't understand that any such requirement exists; that is, for a Gardner chair seat five-foot *chair*.

X Q. 107. Do you limit the size to which the Gardner material can be made before concaving and perforating it?

A. For the purposes of chair seat' I limit the size to the requirements, or to the size of the chair-seat frames to which the seat is made and adapted.

X Q. 108. How about the perforations? Do you limit them to round holes, or does the Gardner invention embrace any shape hole that can be made, depending on the size of the seat and the character of the wood?

A. Gardner does not show or describe any other than a round hole, and I do not think any other shape is contemplated in the Gardner patent. The above is true, irrespective of the kind of wood employed or used in the Gardner seat.

X Q. 109. What is your knowledge of the strength and tenacity of wood veneers? What kinds of wood are the strongest and most tenacious?

A. I think rosewood is about as strong as any that is cut into veneers; black walnut, hickory, mahogany, maple, and birch are strong materials for veneers.

X Q. 110. What are the softest or weakest wood veneers?

A. I don't know what is the softest or weakest; it is not usual to cut soft, weak wood in veneers. I should think white wood or basswood, or wood of that character would be soft and weak.

X Q. 111. When rosewood veneers are put together to make the Gardner material, the perforations could be much larger than those in
261 the Complainants' Exhibit Gardner Seat without weakening those veneers to any greater extent than the holes in that exhibit would, would they not?

A. I don't think that the degree of strength is so much greater in rosewood as to admit of any substantial difference in that respect.

X Q. 112. Do you distinguish between an invention, or the elements of an invention, and the possible advantages arising from an invention?

A. Yes.

X Q. 113. Are the advantages pointed out by you as arising from the Gardner seat in your answer to the 6th question so many elements of the alleged Gardner invention, or was it your intention in giving that answer to simply point out beneficial results or advantages arising from the invention, but in reality distinct from it?

A. They are advantages arising out of the elements as combined by Gardner in his seat, and due to that combination; that is to say, the combination of elements as described and claimed in the Gardner reissue patent co-operate with each other in the manner described by me so as to develop the advantages enumerated.

X Q. 114. These advantages, as you term them, are the incidental results of what Gardner did?

A. They are the results sought and obtained by Gardner in his new article of manufacture, and are due to the construction described, as I understand it.

X Q. 115. Whenever you find three or more layers of veneers glued together, the grain of one layer crossing that of the other, pressed into a concave-convex form, perforated, whether that article is used for a Gardner seat or not, you would have such an article from which the same advantages would arise as those pointed out in your 6th *question*, would you not?

262 A. No; whenever I found three layers of veneers glued together, with their grains crossing, concave on the upper side and convex on the lower, adapted to a chair-seat frame, and perforated, then I would.

X Q. 116. Is it the adaptation to the chair-seat frame upon which you lay such stress and which you think I omitted from my question?

A. I lay stress on adaptation, and you did not confine your question to three layers as described in Gardner's patent.

Adjourned to to-morrow, same hour.

NEW YORK, *Dec. 8th*, 1881.

Met pursuant to adjournment.
Present: Counsel as before.

Cross-examination of S. P. Kittle continued by Mr. FOSTER:

X Q. 117. There is no doubt but that the Gardner seat belongs to the class of pressed work in cabinet making, is there?

A. Yes, there is; the work that employs three veneers glued together with their grains crossing is a general class; but pressed work is broader by considerable in its scope of work; for instance, if the separate scales or their boards employed in pressed work generally were three or four times as thick as that which would answer the requirements of the Gardner material it would be proper for pressed work in some cases, as I understand it. If you mean by your question to ask whether the Gardner material belongs to the class of material glued up with the grains crossing irrespective of thickness or adaptability, I answer yes.

263 X Q. 118. I give as my definition of pressed work the following: "Pressed work is invariably composed entirely of veneers of glue, the grain of each veneer is laid at right angles to that of the next, and the whole being firmly and smoothly glued together, it is a very strong and durable material." And my previous question was intended to ask if the Gardner seat, or, if you choose, the Gardner material, comes within that definition and description of pressed work. What have you to say to that?

A. Yes, it takes in that description and goes beyond it, in my opinion; that is to say, it requires, as I understand the Gardner patent, that each layer should be a full veneer, and, further, that the layers together should be so thin and light as that the thickness when secured on top of a seat frame should not be especially objectionable.

X Q. 119. My definition of pressed work in the above question was quoted from the Belter patent No. 19405 in the second page, third paragraph. Belter speaks of "each veneer and laid at right angles, etc." Yesterday, in explaining the inventor George Gardner's definition or explanation in his 61st answer, folio 75, def'ts' record, you laid stress on Gardner's expression "middle one," "the other two." Isn't it fair to lay the same stress on "each" in the Belter definition quoted by me, and to understand that "each veneer" signifies an entire whole veneer? I wish you to confine yourself to this definition quoted by me.

A. No, I don't think it is, in view of the pressed work illustrated in that very patent. The fact of the grain of each veneer laying across the grain of the next veneer doesn't make it follow in this case that the veneers were to be of any given breadth or were required to be of a special breadth in the pressed work referred to like that described and illustrated in the Gardner patent.

264 X Q. 120. In stating the elements of invention in the Gardner Reissue No. 9094, you emphasize the element of "ready application" by unskilled hands. Please state more fully the various methods of ready application of the Gardner seat by unskilled hands, then specify the methods of application requiring skilled hands in the application of the same.

A. I regard the ready application as a result of the elements of combina-

tion described. And, as I understand it, all this seat requires to apply it to a seat frame is that it should be conformed in its outline by edge-trimming, if necessary, to the outline of the seat frame; that is, a simple edge-cutting that it certainly would not require special skill to perform; being thus fitted to the seat frame, I understand this seat has only to be braded or tacked down on top of the frame for the chair seat. I further understand that the above has been the general practice in the application of these seats from the beginning in a very large proportion of chair seats sold and used. As to the requirement of skilled labor in the application of this seat, had the seat frame to be shaped or rabbeted especially for this seat in order to let it in in some special manner, then it would require skilled labor. In support of the view expressed, I refer to the 90th line of the specification; also to the 91st.

X Q. 121. If the Gardner patent was limited to the method of fitting the seat into a rabbet in the chair-seat frame, and there was no description in the patent of any other method of adapting it to the seat frame, would that or would it not, in your judgment, be a serious and detrimental limitation of the Gardner invention?

(Objected to as incompetent and inadmissible.)

A. Unquestionably that would tend to limit its sale or narrow its general application and value.

265 X Q. 122. You seem to refer to the public use of Gardner's chair seat; my question refers to the scope of the reissue patent No. 9094. Please answer with that explanation.

(Same objections, and also irrelevant.)

A. I think so.

X Q. 123. Do you or do you not find in the Gardner second reissue No. 9094, and claimed therein as an element of Gardner's invention, this alternative method of adapting the seat to chair-seat frames by fitting the same into a rabbet or nailing it flatly upon the frame?

A. Yes.

X Q. 124. The word "adapted" in the first claim and the words in the second claim "as a new article of manufacture substantially set forth" signify and include this double or alternative mode or method of securing the seat to the seat frame, do they not, in your judgment?

A. Yes; that is to say, the seat is of such character when made and before it is fitted that it is adapted not only to be secured on top of the frame, but in a rabbet provided for that purpose, or in any known manner.

X Q. 125. What proportion of the weight of a person does a chair back support or sustain?

A. I should think not more than one-tenth of the weight of a person in ordinary use.

X Q. 126. A chair-seat frame supports and retains the Gardner seat, does it not?

A. Yes.

X Q. 127. A chair-back frame supports and retains the chair back, does it not?

A. Yes.

X Q. 128. In these particulars the functions performed by the chair-back frame and the chair-seat frame are the same, are they not?

266 A. Yes, in those particulars.

X Q. 129. In your direct testimony in your answer to question 17 you say the Baillie chair back has no flexible margin, how do you know whether it had a margin or not when it was first made?

A. I know if it had a margin it had no flexible margin by the thickness and character of the material.

X Q. 130. In your answer to question 19 you speak of the Baillie chair back as being frail; when I assure you that this identical Baillie chair with this identical back has been in constant use in my father's house from October, 1860, when it was made by Mr. Baillie, to the spring of 1881, when it was made an exhibit in this case, and during that time it has not been repaired, or changed in any way, would you say those facts showed strength or frailty in that chair back?

A. I couldn't regard that as proving great strength in the back by any means; because in the first place it is a parlor chair comparatively little used probably, or whether it was little or much used it was not likely to be subjected to hard usage, such as would prove it to be anything more than frail; for instance, I have a piece of furniture known as a "what-not," which I have had in constant use for twenty years, and I believe it is in perfect order now, and yet it is the frailest piece of furniture I have in the house, notwithstanding its shelves are loaded with little souvenirs.

X Q. 131. What would the following words, when they occur in speaking of a chair seat mean, to wit, it "possesses all the advantages of a cushion in adapting itself to the shape of the person"—would these words convey to your mind the fact that a concave or a dishing-concave form would be given to the seat?

A. I think so; on the upper side.

(Def'ts' counsel notes the above quotation is from the Bramhill Patent No. 51132 on the last line of the first page and top of the second.)

267 X Q. 132. Can the Gardner seat be glued to the seat frame and make a good job?

A. Yes.

X Q. 133. What do you understand by these words in the Gardner original patent No. 127045: "A slightly concave configuration may be given to the seat?" I refer specially to the word "configuration."

A. I suppose it means "hollowed" or "dished out."

X Q. 134. Would the following words, when used in relation to a chair seat, convey to your mind the meaning that a hollowed or dishing form could be given to the seat, to wit: "And also capable of being stamped in any desired configuration?"

A. No.

X Q. 135. What would the word "configuration" then mean in the above sentence quoted?

A. Some figure stamped or embossed into a plain surface.

X Q. 136. You give to the word "configuration," then, two meanings, do you?

A. No.

X Q. 137. You said, in relation to the Gardner patent, it is a hollow, and in answer to Q. 134 and 135, you say it is not a hollow but a stamp on a plain surface?

A. The configuration in the Gardner patent was described in the words quoted as slightly concave configuration. It is not so described in the words quoted in Q. 134.

X Q. 138. In relation to the Farmer and the Tice seat, you say they must be specially made to fit the chair seat frame for which they are intended. Isn't this true, also, of the Gardner seat, when you take into consideration the fact that small Gardner seats will only fit small chairs and round seats will not fit square chairs, nor shield-shape seats would not fit square nor round?

268 A. It is true of Gardner seats that some of them are made with the concavity of a size larger than some very small seats, and while such a seat could be adapted by simply trimming, I think that would be straining the adaptation beyond what was intended by the patent; and, furthermore, there are Gardner seats put upon the market of circular outline, I think, which would not be adapted to a chair-seat frame very much larger and square. As to the shield-shape seat, I don't see any difficulty in adapting that, if the seat was large enough, to the ordinary bent chair-seat frame. It would only have to be trimmed a little more on the front edge. I want it understood that I regard these cases as the exception and not the rule in regard to the adaptability of the Gardner seat. And, further, that I know it is the custom of Gardner & Co. to manufacture their seats and to put them upon the market with the variations of sizes and shapes suggested in the question, and yet that they are adapted to various seat frames of the classes for which they are intended.

X Q. 139. And this statement is, in fact, the truth about all the chair seats shown in the patents offered in evidence by the defendant?

A. No, it is not; it isn't true in regard to any of them.

X Q. 140. What I refer to is that all the chair seats shown in the patents offered in evidence by defendant are adapted to the class of chair-seat frames for which they are intended; is that true?

A. What I mean in regard to the Gardner seat peculiarity as to adaptability is, that while it is made up or finished with a concave-convex centre, that it has above that concave centre a margin in a plane adapted to lie on a chair-seat frame, and of such breadth and thickness as that it may be fitted and applied to a large number of different shaped chair seats and of a great variety of different sizes, which is not true of the seats re-

269 ferred to, but the reverse, viz, that they are only adapted to the individual or special chair-seat frame for which they are made or fac similes thereof.

(Defendants' counsel offers in evidence the Gardner round seat, and same is marked "Defendants' Exhibit Gardner Round Seat, J. D., Notary Public."

Also, shield-shape seat, and same is marked "Defendants' Exhibit Shield Seat, J. D., Notary Public.")

S. P. KITTLE.

Subscribed and sworn to before me this 8th day of December, 1881.

JOHN DELAHUNTY,
Notary Public, N. Y. City and County.

270 EXHIBITS.

COMPLAINANTS' EXHIBIT ORIGINAL APPLICATION.

Department of the Interior, United States Patent Office, to all to whom these presents shall come, greeting:

This is to certify that the annexed is a true copy from the files of this office of the file-wrapper and contents, in the matter of the letters patent granted George Gardner, ass'or of two-thirds of his right to Gardner & Gardner, May 21, 1872, No. 127045, for improvement in chair seats.

In testimony whereof I, E. M. Marble, Commissioner of Patents, have caused the seal of the Patent Office to be hereunto affixed this fifth day of August, in the year of our Lord one thousand eight hundred and eighty-one, and of the Independence of the United States the one hundred and sixth.

[SEAL.] E. M. MARBLE,
Commissioner.

271 PETITION.

To the Commissioner of Patents, United States of America:

The petition of George Gardner, of Glen Gardner, Hunterdon Co., New Jersey, respectfully represents: That your petitioner has invented a new and useful chair seat, which he verily believes has never before been known or used prior to the invention thereof by your petitioner; he therefore prays that letters patent of the United States of America may be granted to him therefor, vesting in him and his legal representatives and assigns, the exclusive right to the same upon the terms and conditions expressed in the acts of Congress in that case made and provided; he having paid fifteen dollars into the Treasury, and otherwise complied with the requirements of the said acts; and I do hereby constitute and appoint Messrs. Edson Brothers, of Washington, D. C., my sole and lawful attorneys to present and prosecute this application for letters patent to final issue, with authority to make all such alterations thereof and amendments thereto as may be required; to sign my name to the drawings, and to receive all communications from the Commissioner of Patents in this case, and the letters patent thereon when granted.

GEO. GARDNER.

[Stamp, 50c.]

272 OATH.

COUNTY OF HUNTERDON,
State of New Jersey, ss:

On this sixteenth day of November, 1871, before me, the subscriber, duly qualified to administer oaths, personally appeared the within-named George Gardner, and made solemn oath that he verily believes himself to be the original and first inventor of the within-described chair seat, and that he does not know or believe that the same was ever before known or used; and that he is a citizen of the United States.

WILLIAM S. BROWN,
Justice of the Peace.

To all whom it may concern:

Be it known that I, George Gardner, of Glen Gardner, in the county of Hunterdon and State of New Jersey, have invented a new and useful chair seat; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to which my invention relates, to construct the same, reference being had to the accompanying drawing and to the letters of reference marked thereon.

Figure 1 is a plan view having two sections, the first showing the canvas and the second the middle layer of veneer.

Figure 2 is a longitudinal section taken on line *x x* of Figure 1.

Similar letters of reference refer to like parts in both of the figures.

This invention relates to chair seats, and it consists in constructing a seat out of veneers of wood with the grain running across each other and glued together, either with or without sheets of canvas between the said veneers, as will be more fully hereinafter described.

273 I have shown in the drawing accompanying this specification, three layers of veneers, they being represented by the letters A, B, and C, and two sheets of canvas, D and E.

The grain of the veneer A runs across that of veneer B, as shown in the second section Figure 1, and the grain of veneer B across that of veneer C, as shown in Figure 2. Veneers when thus arranged, that is to say, with the grain running in diverse directions, will make a seat which, for strength and economy, will be found to be a very useful improvement; when, however, still greater strength is desired I place, alternately, a sheet of canvas between the veneers, as shown at D and E, and then glue them together as before.

The seats may be left solid, or perforated after some design, agreeable to the fancy of the one having them made. A slightly concave configuration may be given to the seat, as shown in Figure 2.

Seats thus made do not cost as much as those that are made of cane, and besides, are better by far, in point of durability.

The veneers rest upon a shoulder, *f*, of a frame, F, which surrounds them.

Having thus described my invention, what I claim and desire to secure by letters patent is:

I claim a chair seat constructed of veneers of wood, with the grain running crosswise of each other and glued together, either with or without the canvas, as described, all substantially as herein set forth and shown, and for the purpose specified.

In testimony whereof I have signed my name to this specification of my invention, in the presence of two attesting witnesses, this 16th day of November, 1871.

GEO. GARDNER, *Inventor.*

Witnesses:

1. JOHN TEATS.
2. ALBERT STEPHENS.

274 (No. 1.)
24.

U. S. PATENT OFFICE,
Washington, D. C., November 23d, 1871.

GEORGE GARDNER
(*Care of Edson Bros.*), *Washington, D. C.:*

Please find below a communication from the examiner in the matter of your application for letters patent for a "chair seat," filed November 20, 1871.

Very respectfully,

Commissioner.

EXAMINER'S ROOM, No. 104.

A claim for the invention above referred to, when limited to one mode of construction and the description in the specification so limited, will be duly considered, and as now advised will be allowed.

J. T. FALES, *Examiner.*

COM. OF PATENTS:

SIR: In the matter of the application of George Gardner for a patent for a "chair seat," filed on the 20th ult., we desire to cancel the drawing, and file in its stead the one accompanying this amendment; we also desire to amend the specification by erasing from the specification all after line 1, page 2, down to the signatures, and insert in lieu thereof the following, to wit:

Figure 1 is a plan view partly in section, the section showing the middle layer of veneer.

Figure 2 is a longitudinal section taken on the line *x x* of Figure 1.

275 Similar letters of reference refer to like parts in both of the figures.

This invention relates to chair seats; and it consists in constructing a seat out of veneers of wood, with the grain running across each other and glued together.

I have shown in the drawing accompanying this specification three layers of veneers, they being represented by the letters A, B, C.

The grain of veneer A crosses that of veneer B, as shown in section in Figure 1, and the grain of veneer B crosses that of veneer C, as seen in Figure 2; veneers when thus arranged, that is to say, with the grain running in diverse directions, will make a seat which for economy and durability will be found to be a very useful improvement.

The seats may be left solid or perforated after some design agreeable to the fancy of the one having them made. A slightly concave configuration may be given to the seat as shown in Figure 2.

Seats thus made do not cost as much as those that are made of cane, and are better by far in point of durability.

The veneers rest upon a shoulder *f*, of a frame, F, which surrounds them.

Having thus described my invention, what I claim and desire to secure by letters patent is:

As a new article of manufacture a chair seat constructed of veneers of wood, with the grain running crosswise of each other and glued together, all substantially, as set forth and for the purpose specified.

EDSON BROS.

276 U. S. PATENT OFFICE,
(No. 1.) *Washington, D. C., Dec.* 14, 1871.

GEORGE GARDNER
(*Care of Edson Bros.*), *Washington, D. C.:*

Please find below a copy of communication from the examiner in relation to your application for a patent for a chair seat, filed Nov. 20, 1871.

Very respectfully,

Commissioner.

EXAMINER'S ROOM, No. 104.

The amendments presented in the above-named application cannot be examined in connection with the new drawing, as it is entirely destitute of the letters of reference.

J. T. FALES, *Examiner.*

277 U. S. PATENT OFFICE.

Application of George Gardner, filed Nov. 20, 1871.

CONTENTS OF THIS FILE:

1. Application.
2.
3.
4.
5.
6.
7.
8.
9.
10.
11.
12.
13.
14.
15.
16.
17.
18.

278 *Memorandum of fee paid at U. S. Patent Office.*

Inventor: Geo. Gardner.
Invention: Chair seat.
Date of payment:
Final fee: 20.
Solicitor:
To Inventor: Edson Bros.

279 Class 62. 1871. Fales. 1767.
No. 127045. H 168.

George Gardner, ass'or of ⅔ of his right to Gardner & Gardner, of Glen Gardner, county of Hunterdon, State of New Jersey.

CHAIR SEAT.

Rec'd	Nov. 20, 1871.
Petition	" " "
Affidavit	" " "
Specification	" " "
1 drawing	" " "
Model	" 21, "
Cert. dep	
Cash, $15	Nov. 20, 1871.
Add'l fee cert	
1 " " cash, $20	May 6, 1872.

Examined, Dec. 16, 1871. J. T. Fales.

Issue Grinnell Dec. 16—71.
4 patented May 21, 1872.
Recorded vol. , page .
Circular Dec. 18, 1871.

EDSON BROS., *Present.*

(Across the face:) Reissued July 4, 1876. No. 7203.

1871.

1871.

Letter, Nov. 23d, 1871.
Letter, Dec. 14, 1871.
(Across the face:) Improvement in chair seats.

1871.

280 COMPLAINANTS' EXHIBIT APPLICATION FOR GARDNER PATENT No. 127044.

Department of the Interior, United States Patent Office, to all persons to whom these presents shall come, greeting:

This is to certify that the annexed is a true copy from the files of this office of the file-wrapper and contents in the matter of the letters patent granted George Gardner, ass'or of two-thirds of his right to Gardner & Gardner, May 21, 1872, No. 127044, for improvement in chair seats.

In testimony whereof I, E. M. Marble, Commissioner of Patents, have caused the seal of the Patent Office to be hereunto affixed this fifth day of August, in the year of our Lord one thousand eight hundred and eighty-one, and of the Independence of the United States the one hundred and sixth.

[SEAL.] E. M. MARBLE, *Commissioner.*

281 PETITION.

To the Commissioner of Patents, United States of America:

The petition of George Gardner, of Glen Gardner, in the county of Hunterdon and State of New Jersey, respectfully represents, that your petitioner has invented a new and useful improvement in chair seats, which he verily believes has never before been known or used prior to the invention thereof by your petitioner; he therefore prays that letters patent of the United States of America may be granted to him therefor, vesting in him, his legal representatives and assigns, the exclusive right to the same, upon the terms and conditions expressed in the acts of Congress in that case made and provided; he having paid fifteen dollars into the Treasury, and otherwise complied with the requirements of the said acts; and he hereby constitutes and appoints Messrs. Edson Brothers, of Washington, D. C., his sole and lawful attorneys, to present and prosecute his application for letters patent to final issue, with authority to make all such alterations thereof and amendments thereto as may be required; to sign his name to the drawings, and to receive all communications from the Commissioner of Patents in this case, and the letters patent thereon when granted.

GEO. GARDNER.

[Stamp, 50c.]

282 OATH.

County of Hunterdon,
State of New Jersey, ss:

On this fifteenth day of January, 1872, before me, the subscriber, duly qualified to administer oaths, personally appeared the within-named George Gardner, and made solemn oath that he verily believes himself to be the original and first inventor of the within-described improvement in chair seats; and that he does not know or believe that the same was ever before known or used; and that he is a citizen of the United States.

WILLIAM S. BROWN,
Justice of the Peace.

Specification of George Gardner, of Glen Gardner, in the county of Hunterdon and State of New Jersey, for improvement in chair seats.

This invention relates to an improved seat for chairs, etc., and it consists of layers of veneering each alternate one of which has its grain running in an opposite direction to that of the intermediate one, in combination with one or more layers of textile or fibrous material, substantially as hereinafter more fully set forth and claimed.

Figure 1, in the annexed drawing, illustrates a plan view of my improved chair seat, with a part of the upper or top layer of veneering broken away, exhibiting a layer of canvas, or other textile material, and a portion of said canvas removed, showing a second layer of veneering with its grain running in a contrary direction to that of the said top layer, and

283 Figure 2 represents a longitudinal, vertical section of the same. Like parts in the two figures are designated by similar letters.

To enable others to make and use my invention, I will proceed to describe it.

In the accompanying drawing I show three layers of veneering, A, B, C, and a single layer of canvas, E, which are glued together and secured within the frame D.

In practice the layers of veneering and canvas may be increased in number, if desired.

Any textile or fibrous material may be made to serve the purpose of the canvas, but I prefer the canvas, as it is both cheap and durable.

Although the seat has been described as being applicable to chairs only, still I do not confine myself to its use in any particular article of furniture.

If desired the seat may be perforated for ventilation and ornamentation.

Having thus described my invention what I claim and desire to secure by letters patent is:

An improved seat, consisting of layers of veneering, the grains of which run in opposite directions, in combination with one or more layers of textile material substantially as herein shown and described.

In testimony whereof I have hereunto signed my name this 15th day of January, 1872, in presence of two subscribing witnesses.

Inventor:

GEO. GARDNER.

Witnesses:

PHILIP G. VROOM.
JOSEPH H. GARDNER.

284 *Memorandum of fee paid at U. S. Patent Office.*

$20. Hand.
Inventor: Geo. Gardner.
Invention: Chair seat.
Date of payment:
Final fee: 20.
Solicitor:
To inventor: Edson Bros.

285 U. S. PATENT OFFICE.

Application of George Gardner.—Filed Ap'l 6, 1871.

CONTENTS OF THIS FILE:

1. Application.
2.
3.
4.
5.
6.
7.
8.
9.
10.
11.
12.
13.

14.
15.
16.
17.
18.

286 62. 1872. Fales.
Z587
No. 127044. 189

George Gardner, ass'or of $\frac{2}{3}$ of his right to Gardner & Gardner, of Glen Gardner, county of Hunterdon, State of New Jersey.

CHAIR SEATS.

Rec'd.....April 6, 1872.
Petition..... " " "
Affidavit..... " " "
Specification..... " " "
1 drawing..... " " "
Model..... " 8, "
Cert. dep.....
1 cash, $15 .....April 6, 1872.
Add'l fee cert.....
1 " " cash, $20.....May 6, 1872.
Examined April 13, 1872. J. T. Fales.
2 issue. Knight. April 13, 1872.
4 patented May 21, 1872.
Recorded vol. , page .
Circular April 15, 1872.

EDSON BROS., *Present.*

(Across the face:) Reissued July 4, 1876. No. 7202.

287 COMPLAINANTS' EXHIBIT REISSUE APPEAL.

Department of the Interior, United States Patent Office, to all persons to whom these presents shall come, greeting:

This is to certify that the annexed is a true copy from the files of this office of the appeal to the examiners-in-chief, in the matter of the application for the reissue of letters patent granted George Gardner, May 21, 1872, No. 127045, for improved chair seat.

In testimony whereof I, E. M. Marble, Commissioner of Patents, have caused the seal of the Patent Office to be hereunto affixed this fifteenth day of July, in the year of our Lord one thousand eight hundred and eighty-one, and of the Independence of the United States the one hundred and sixth.

[SEAL.]

E. M. MARBLE,
Commissioner.

288 NEW YORK, *Dec.* 16, 1879.

Hon. COM'R OF PATENTS:

SIR: In the reissue application filed Oct. 30, 1879, of my chair-seat patent, granted May 21, 1872, I hereby appeal from the decision of the examiner to the examiners-in-chief, the claims having been rejected a second time Dec. 5, 1879. The following reasons are given:

1st. The patent, as originally granted, was re-issued July 4, 1876, with six claims. The state of the art was not set forth properly therein; the claims had been multiplied and stretched until holes were torn in them; still, their defects were not officially observed. It appears now to be with bad grace that the Patent Office rejects two concise and carefully-drawn claims upon the references only that are given in the specification, as showing the state of the art more fully than previously known officially, and that after the specification points out the features of novelty and utility.

2nd. No one reference shows the device of either claim; hence, such claim is not anticipated, upon the well known principles that a combination of devices is not anticipated by the separate elements, or that an article having certain inherent features is anticipated by numerous articles having each one of the separate features. That hence, the objection is to be regarded as only an opinion that the device is lacking in patentability.

3d. Utility, possessed in a superior or unusual degree, may safely be regarded as accompanied with novelty and patentability, because the superior utility would have ensured a sale; and the absence of these goods from the market before the invention of Gardner, is reliable evi-

289 dence of novelty; and the unprecedented appreciation of these seats, even in the chairs of the examiner-in-chief, and their world-wide sale, probably millions, has established their unusual utility and indirectly their novelty, for the reasons aforesaid.

4th. That the examiner erred in rejecting the reissue application when the references cited in the specification gave the whole truth of the state of the art, and pointed out the features of novelty, in view of what had preceded the applicant's invention.

5th. That great utility being a known property of the seat, and the novelty being carefully defined, that the examiner erred in not appreciating the patentability, and that his decision should be reversed.

GEORGE GARDNER,
Per LEMUEL W. SERRELL, *Att'y.*

290 COMPLAINANTS' EXHIBIT REISSUE DECISION.

Department of the Interior, United States Patent Office, to all persons to whom these presents shall come, greeting:

This is to certify that the annexed is a true copy from the records of this office of the decision of the examiners-in-chief, in the matter of the application for the reissue of letters patent granted George Gardner, May 21, 1872, No. 127045, for improved chair seat.

In testimony whereof I, E. M. Marble, Commissioner of Patents, have caused the seal of the Patent Office to be hereunto affixed this fifteenth day of July, in the year of our Lord one thousand eight hundred and eighty-

one, and of the Independence of the United States the one hundred and sixth.

[SEAL.] E. M. MARBLE,
Commissioner.

291 No. 5756.

U. S. PATENT OFFICE, *Jan.* 21, 1880.

Before the examiners-in-chief on appeal.

Application of George Gardner for a reissue of reissued patent No. 7203—original patent No. 127045, dated May 21, 1872—application filed October 9, 1879. Imp'd chair seat.

The original claim of the patent of May 21, 1872, was as follows:

As a new article of manufacture, a chair seat constructed of veneers of wood with the grain running crosswise of each other and glued together, all substantially as set forth and for the purpose specified.

This was expanded on reissue, and multiplied into six claims, as follows:

1. As a new article of manufacture a bottom for a seat, constructed of two or more veneers or thin layers of wood, with the grain of the one layer crossing that of the other, and the whole secured together with an adhesive substance substantially as set forth.

2. As a new article of manufacture. A bottom for a seat frame constructed of two or more veneers or thin layers of wood, with the grain of the one layer crossing that of the other, said layers being secured together by an adhesive substance, and having perforations formed therein for the purpose of ventilation or ornamentation, substantially as set forth.

3. The combination of a seat bottom, constructed of two or more veneers, or thin layers of wood, with the grain of the one layer crossing that of the other, and the whole secured together by an adhesive substance, with the frame of the seat substantially as set forth.

292

4. The combination of a seat-bottom, constructed of two or more veneers or thin layers of wood, the grain of the one layer crossing that of the other, and the whole secured together by an adhesive substance, and provided with perforations for the purpose of ventilation or ornamentation, with the frame of a seat, substantially as set forth.

5. As a new article of manufacture, a wooden bottom for seats, provided with perforations for the purpose of ventilation or ornamentation.

6. As a new article of manufacture, a seat-bottom constructed of two or more veneers or thin layers of wood, the grain of the one layer crossing that of the other and secured together by an adhesive substance, said bottom thus formed having a curved or concave configuration on its upper side, substantially as set forth.

Applicant now proposes to again reissue and to reduce the number of claims and their scope as follows:

1st. As a new article of manufacture, a chair-seat formed of lamina of wood with the grain crossing, glued together and concave on the upper surface and convex on the lower surface, adapted to a chair frame, substantially as set forth.

2nd. A chair seat made of lamina of wood glued together with the grains in one layer crossing those of the next, concave on the upper surface, convex on the lower surface, and perforated, as a new article of manufacture, substantially as set forth.

The examiner does not profess to have added anything to what is set forth in the specification showing the state of the art. He, however, refers to a holding by Blatchford, *J.*, in U. S. circuit court, and which has unfortunately appeared in print, by which a preliminary injunction
293 is refused to restrain infringers of the first five claims of Gardner's reissue patent, on the ground that they cover nothing patentable not shown by Mayo's patent of December 26, 1865.

This by no means shows a final or conclusive adjudication on the patentability of the subject-matter embraced in those claims.

Mayo himself was anticipated as to the material covered by his patent, and he merely suggested that this old material would form a "firm material for numerous articles, and amongst them chairs."

This was as well known before he made that suggestion as after. He gave nothing to the art or the public. He did not conceive himself nor did he hint of any peculiar way in which the material could be so used.

No forming it into chair seats and perforating and moulding.

The specific article made under Gardner's patent are now so well and favorably known to the public, was to all intents and purposes "a new article of manufacture." The material was one distinctive feature.

The forming it so as to be adapted to ordinary chair-bottom frames and giving it the proper shape for a seat was another feature. While the perforations were an additional feature which might be added or omitted without particularly affecting the real character of the new article as an invention.

That this presents patentable matter is not, in fact, questioned by the holding.

But though not covered by Mayo's original patent, it is supposed to be found and embraced in the reissue to his assigns August 18, 1868, Division E, in which a chair is shown in the drawing and referred to in the specification as made of this material.

The practice of the office in allowing a reissue, in some eight
294 divisions, of a patent which only set forth and claimed the application of scale boards or veneers in layers, the direction of whose grains is crossed or diversified, and which are connected together, forming a material for the construction, lining, or covering of land and marine structure, is not for us to defend or condemn.

Under the present practice of the office, we should consider this matter relating to a chair in Division E—beyond what appears in the original patent—would be held to be objectionable new matter.

The chair shown in the drawing appears to have its whole frame and rocker, seat and back, constructed of this patented scale board.

And in the specification sets forth that the bottom "may be formed of a flexible material made up by the adhesion of two or more thin layers of wood, having the grain crossed or diversified in direction and united by suitable cement.

And the chair back may be formed in the same way, whereby a back is produced possessing great strength, and practically homogeneous and jointless from end to end.

Now, the question is, whether applicant, in the face of the publication and knowledge that chair frames and backs and bottom could be made of this material, and of the state of the art as acknowledged, exercised any invention in uniting the various features and qualities exhibited in his chair seat.

As before suggested, Gardner's chair seat was a distinctive and novel article.

There was nothing like it in the market.

Chairs might have been built up with laminated seats and with solid pressed seats of similar shape, and with perforated seats.

But there were no independent chair seats of this, or equivalent material, formed and shaped as described to be, put on the market by themselves, and ready to be attached to chair frames.

295 They did not take the market as component parts of chairs, but as seats, ready to be fitted and affixed to chairs.

As such, the office thought them patentable over anything shown by Mayo or known or used by the public.

The opinion of Judge Blatchford does not condemn the sixth claim of applicant's reissued patent, and this, wes see, is in substance what is now embraced in the claims presented.

It is also substantially what was embraced in the original patent, and the opinion referred to can only be held to inferentially question the same.

The present application may then be considered as an effort to get back to first narrow grounds, and put the patent in the best shape to go properly before the court.

We think the reissue should be allowed, and reverse the decision of the examiner.

R. L. B. CLARKE,
V. D. STOCKBRIDGE,
H. H. BATES,
Examiners-in-Chief.

296 COMPLAINANTS' EXHIBIT SEYMOUR-WOOD PATENT.—J. D., *Notary Public.*

Department of the Interior, United States Patent Office, to all persons to whom these presents shall come, greeting:

This is to certify that the annexed is a true copy from the records of this office of the letters patent granted Henry I. Seymour, March 29, 1864, No. 42150, for improvement in chair seats.

In testimony whereof I, E. M. Marble, Commissioner of Patents, have caused the seal of the Patent Office to be affixed this twelfth day of September, in the year of our Lord one thousand eight hundred and eighty-one, and of the Independence of the United States the one hundred and sixth.

[SEAL.]

E. M. MARBLE,
Commissioner.

297 No. 42150.

United States of America to all to whom these letters patent shall come:

Whereas Robert Wood, of West Troy, New York, has alleged that he has invented a new and useful improvement in chairs seats (he having assigned his right, title, and interest in said improvement to Henry I. Seymour, of Troy, N. Y.,) which he stated has not been known or used before his application; has made oath that he is a citizen of the United States; that he does verily believe that he is the original and first inventor or discoverer of the said improvement, and that the same hath not, to the best of his knowledge and belief, been previously known or used; has paid into the Treasury of the United States the sum of thirty-five dollars, and presented a petition to the Commissioner of Patents, signifying a desire of obtaining an exclusive property in the said improvement, and praying that a patent may be granted for that purpose.

These are, therefore, to grant, according to law, to the said Henry I. Seymour, his heirs, administrators, or assigns, for the term of seventeen years from the twenty-ninth day of March, one thousand eight hundred and sixty-four, the full and exclusive right and liberty of making, constructing, using, and vending to others to be used, the said im-

298 provement, a description whereof is given in the words of the said Robert Wood in the schedule hereunto annexed, and is made part of these presents.

In testimony whereof I have caused these letters to be made patent, and the seal of the Patent Office has been hereunto affixed.

Given under my hand, at the city of Washington, this twenty-ninth day of March, in the year of our Lord one thousand eight hundred and sixty-four, and of the Independence of the United States of America the eighty-eighth.

[SEAL.]

J. P. USHER,
Secretary of the Interior.

Countersigned and sealed with the seal of the Patent Office.

D. P. HOLLOWAY,
Commissioner of Patents.

299 COMPLAINANTS' EXHIBIT CENTENNIAL REPORT.—J. D., *Notary Public.*

INTERNATIONAL EXHIBITION—PHILADELPHIA, 1876.

The United States Centennial Commission has examined the report of the judges and accepted the following reasons, and decreed an award in conformity therewith:

PHILADELPHIA, *Nov. 16th*, 1876.

REPORT ON AWARDS.

Product: Seats for chairs, settees, and railway cars.

Name and address of exhibitor: Gardner & Co., New York.

The undersigned, having examined the product herein described, respectfully recommends the same to the United States Centennial Commis-

sion for awards for the following reasons, viz: For neat and serv-
300 iceable perforated wood seating for halls, churches, railway cars, and general use, combining great durability with reasonable price.

THEODORE SNYERS, FILS,
Signature of the Judge.

Approval of group judges.

CHANCEY WILTSE.
ROB'T MITCHELL.
FR. THONET.
A. DE ROCHAMBEAU.
THEODORE SNYERS, FILS.

A true copy of record.

FRANCIS A. WALKER,
Chief of the Bureau of Awards.

Given by authority of the United States Centennial Commission of Awards.

J. R. HAWLEY,
President.
A. T. GOSHORN,
Director-General.
J. L. CAMPBELL,
Secretary.

{ SEAL OF THE UNITED STATES CENTENNIAL COMMISSION. }

301 COMPLAINANTS' EXHIBIT STATEMENT OF GARDNER SALES.—J. K., *Special Examiner.*

1875	April	23, 300
	May	25, 500
	June	16, 200
	July	13, 200
	August	10, 600
	September	12, 900
	October	15, 400
	November	13, 700
	December	9, 900
1876	January	11, 900
	February	12, 900
	March	21, 000
	April	20, 600
	May	22, 500
	June	14, 700
	July	6, 700
	August	11, 900
	September	13, 800
	October	17, 200
	November	13, 900
	December	11, 200
1877	January	11, 500
	February	27, 300

	March	26,600
	April	29,300
	May	30,600
	June	25,000
302	July	15,900
	August	17,700
	September	20,600
	October	26,400
	November	27,500
	December	19,600
1878—	January	24,300
	February	28,700
	March	37,700
	April	48,900
	May	44,200
	June	34,900
	July	25,300
	August	31,300
	September	37,100
	October	36,700
	November	33,100
	December	34,500
1879—	January	32,900
	February	47,300
	March	56,900
	April	75,000
	May	73,400
	June	44,500
	July	46,500
	August	42,200
	September	35,300
	October	41,000
	November	49,900
	December	37,200
303	1880—January	58,700
	February	75,600
	March	54,800
	April	66,700
	May	55,100
	June	42,100
	July	26,800
	August	48,600
	September	49,600
	October	55,800
	November	46,900
	December	59,200

COMPLAINANTS' EXHIBIT DEFENDANTS' BILL.

(All errors must be reported on receipt of goods.)

NEW YORK, *June* 19, 1880.

M . Cash bought of Herz & Company, manufacturers and patentees of elastic and perforated three-ply veneer chair seats, chairs, settees, and seatings of all kinds. Also three-ply veneer grocer's scoops. 313 to 321 East 22d street, bet. 1st & 2d avenues, Herz & Co.'s perforated and elastic veneer seats:

15	½ doz., birch I, @ 16c	96
	Less 10	10
		86

Paid.

HERZ & CO.
Per E. E. T.

Shipped.

No agent allowed to collect money for us without our written order. All bills unsettled at maturity will be drawn for at sight.

(Here follows diagram marked page 303½.)

304 COMPLAINANTS' EXHIBIT SEYMOUR AND WOOD PATENT.

Department of the Interior, United States Patent Office, to all persons to whom these presents shall come, greeting:

This is to certify that the annexed is a true copy from the records of this office of the letters patent granted Henry I. Seymour, March 29, 1864, No. 42150, for improvement in chair seats.

In testimony whereof I, E. M. Marble, Commissioner of Patents, have caused the seal of the Patent Office to be affixed this twelfth day of September, in the year of our Lord one thousand eight hundred and eighty-one, and of the Independence of the United States the one hundred*th* and sixth.

[SEAL.] E. M. MARBLE,
Commissioner.

United States of America to all to whom these letters patent shall come:

305 Whereas Robert Wood, of West Troy, New York, hasalleged that he has invented a new and useful improvement in chair seats (he having assigned his right, title, and interest in said improvement to Henry I. Seymour, of Troy, N. Y.), which he states has not been known or used before his application; has made oath that he is a citizen of the United States; that he does verily believe that he is the original and first inventor or discoverer of the said improvement, and that the same hath not, to the best of his knowledge and belief, been previously known or used; has paid into the Treasury of the United States the sum of thirty-five dollars, and presented a petition to the Commissioner of Patents signi-

fying a desire of obtaining an exclusive property in the said improvement, and praying that a patent may be granted for that purpose.

These are, therefore, to grant, according to law, to the said Henry
306 I. Seymour, his heirs, administrators, or assigns, for the term of seventeen years from the twenty-ninth day of March, one thousand eight hundred and sixty-four, the full and exclusive right and liberty of making, constructing, using, and vending to others to be used, the said improvement, a description whereof is given in the words of the said Robert Wood in the schedule hereto annexed, and is made part of these presents.

In testimony whereof I have caused these letters to be made patent, and the seal of the Patent Office has been hereunto affixed.

Given under my hand at the city of Washington this twenty-ninth day of March, in the year of our Lord one thousand eight hundred and sixty-four, and of the Independence of the United States of America the eighty-eighth.

[SEAL.] J. P. USHER,
Secretary of the Interior.

Countersigned and sealed with the seal of the Patent Office.

D. P. HOLLOWAY,
Commissioner of Patents.

(Here follows diagram marked page 307.)

308 *The schedule referred to in these letters patent and making a part of the same.*

Be it known that I, Robert Wood, of West Troy, in the county of Albany, State of New York, have invented new and useful "Improved Chair Seats," made by fastening narrow strips of veneers, or thin wood, across and to the seat frames, as hereinafter described.

The drawings hereto attached are hereby made part hereof. To enable others skilled in the art to use my invention, I would say as follows: My method of using my invention is to construct the seat frame in any usual way, and of any desired form, and to place narrow strips of veneers, or thin wood at short intervals across such seat frame and the opposite ends of such veneers into channels or grooves, cut therein for receiving the same, and there to fasten them with glue or otherwise, thus forming an open seat somewhat like a cane seat. These strips of veneer may be placed from front to back of the seat frame as shown in Figures 3 and 5 of said drawing, or diagonally, as shown in Figure 2, or in any desired direction; and the ends of the strips and the channels therefor may be shaped, as shown on a large scale in Figure 4, or otherwise; or such strips may be placed upon the frame and there secured. Instead of one set of strips, as shown in Figures 2, 3, and 5, a second set may be added and placed underneath and at right angles to the first set, as shown in Figure 1, or in any desired direction; or the two sets may be interwoven more or less, and grooves for such second set may be cut either into the top or bottom side of the frame. Where only one set of strips is used the same may be strengthened by one or two strips placed underneath and crosswise of same, or diagonally or otherwise, or wire may be used for this purpose. The seats thus made

may be used in chairs of any desired construction, and chair backs may be made in the same manner.

What I claim as new and desire to secure by letters patent is, chairs containing seats or backs, made substantially as described, as a new article of manufacture.

ROBERT WOOD.

Witnesses:
JNO. B. GALE.
C. L. ALTEN.

309 COMPLAINANTS' EXHIBIT GARDNER REISSUE.—J. K., *Special Examiner.*

DEPARTMENT OF THE INTERIOR, UNITED STATES PATENT OFFICE.

To all persons to whom these presents shall come, greeting:

This is to certify that the annexed is a true copy from the records of this office of the reissue letters patent granted Oliver L. Gardner, William Gardner, and Jane E. Gardner, February 24th, 1880, No. 9094, for improvement in chair seats.

In testimony whereof I, E. M. Marble, Commissioner of Patents, have caused the seal of the Patent Office to be hereunto affixed this seventeenth day of September, in the year of our Lord one thousand eight hundred and eighty, and of the Independence of the United States the one hundredth and fifth.

[SEAL.] E. M. MARBLE,
Commissioner.

Reissue No. 9094.

THE UNITED STATES OF AMERICA.

To all to whom these presents shall come:

Whereas George Gardner, of Westfield, New Jersey, assignor by mesne assignments to Oliver L. Gardner, William Gardner, and Jane E. Gardner, has presented to the Commissioner of Patents a petition praying for the reissue of letters patent for an alleged new and useful improvement in chair seats, for which letters patent were issued to George Gardner and Gardner & Gardner, dated May 21st, 1872; the same surrendered and new letters issued to George Gardner, William Gardner, and Jane E. Gardner, dated July 4, 1876; which last letters having been surrendered, the same have been canceled, and new letters ordered to issue to said assignees on an amended specification, a description of which invention is contained in the specification, of which a copy is hereunto annexed and made a part hereof, and has complied with the various requirements of law in such cases made and provided; and

Whereas, upon due examination made, the said claimant is adjudged to be justly entitled to a patent under the law:

Now, therefore, these letters patent are to grant unto the said Oliver L. Gardner, William Gardner, and Jane E. Gardner, their heirs or assigns, for the term of seventeen years from the twenty-first day of May, one

thousand eight hundred and seventy-two, the exclusive right to make, use, and vend the said invention throughout the United States and the Territories thereof.

In testimony whereof I have hereunto set my hand and caused the seal of the Patent Office to be affixed, at the city of Washington, this twenty-fourth day of February, in the year of our Lord one thousand eight hundred and eighty, and of the Independence of the United States of America the one hundredth and fourth.

[SEAL.]

A. BELL,
Acting Secretary of the Interior.

Countersigned:
H. E. PAINE,
Commissioner of Patents.

(Here follows diagram, marked page 310.)

311 UNITED STATES PATENT OFFICE.

George Gardner, of Westfield, New Jersey, assignor, by mesne assignments, to Oliver L. Gardner, William Gardner, and Jane E. Gardner. Chair seat. Specification forming part of reissued letters patent No. 9094, dated February 24, 1880. Original No. 127045, dated May 21, 1872; reissue No. 7203, dated July 4, 1876. Application for reissue filed October 31, 1879.

To all whom it may concern:

Be it known that I, George Gardner, now of Westfield, in the State of New Jersey, have invented an improvement in chair seats, of which the following is a specification:

The state of the art in relation to devices having a similarity to my invention may be set forth as follows: In letters patent No. 15552, granted August 19, 1856, a bedstead is described made of veneers glued together, with the grains crossing, and in such patent there is a statement that veneers crossing and glued together had been used for combining strength and lightness. In letters patent No. 19405, February 23, 1858, chairs and other articles of furniture are described as made of layers of wood or veneers crossing each other, glued together, and pressed to shape. In letters patent No. 40509, granted November 3, 1863, boxes are described as made of veneers or layers of wood crossing each other and glued together. In letters patent No. 23225, granted March 15, 1859, a chair bottom is described as made of a piece of board softened by steam and pressed up to shape in molds. In letters patent No. 110096, December 13, 1870, a barrel is described of laminæ of wood with the grain crossing and glued together. Sheet metal perforated to form chair bottoms is set forth in A. S. Smith's patent, reissued June 27, 1865. Chair seats of enameled hard rubber and gutta-percha perforated are set forth in letters patent No. 54863, May 7, 1866. Letters patent No. 51735, granted December 25, 1865, to J. K. Mayo, sets forth numerous articles made of laminæ of wood; and in a subsequent reissue, dated August 18, 1868, mention is made of a chair seat, but the same was neither concave nor perforated.

My invention, as distinguished from the foregoing, relates to a new ar-

ticle of manufacture, consisting of a chair seat made of veneers of wood, with the grains of one veneer crossing the other and glued together, and having a concave or dishing form, and perforated.

From the foregoing it will be apparent that I do not lay any claim to the veneers crossing each other and glued together, as these have been used for various purposes, and even for furniture, and have become public property. Neither do I claim the pressing of a chair seat into a concave form by dies. Neither do I claim a perforated seat, as sheet metal has been employed; but it is cold to the person, and liable to break and to catch the clothing. Neither do I claim a single layer of such material as hard rubber or gutta-percha perforated. This is so expensive as not to be adapted to general use.

My chair seat is a new article possessing great strength and durability. It is very light and cheap. It forms an agreeable seat. It is not hot in summer or cold in winter. The perforations give the wood a handsome appearance and afford the required ventilation, and the seat is adapted to be secured to any chair frame, as it is easily cut and fitted to the same, and the cost of these seats is less than those made of cane, and they are much more durable.

In the drawings, Figure 1 is a plan with the upper layer of veneer partially removed. Fig. 2 is a vertical section of the chair and seat.

I have shown three layers of veneers, A B C. The grain of the veneer A crosses that of the veneer B, and the grain of the veneer B crosses that of the veneer C, and these are cemented together by suitable adhesive substance, such as glue.

The seat is of a concave or dishing form, so as to be better adapted to the shape of the person, and the under side of the seat is convex.

The perforations through the seat are to be arranged to produce any design that may be agreeable to the fancy of the person making or using the chair. These perforations make the seat light, and also ventilate the same.

The edges of the seat rest upon and are secured to the chair frame, and in Fig. 2 the frame is rabbeted to form shoulders *f*, upon which the edges of the seat rest.

I claim as my invention—

312 1. As a new article of manufacture, a chair seat formed of laminæ of wood with the grain crossing, glued together, and concave on the upper surface and convex on the lower surface, adapted to a chair frame, substantially as set forth.

2. A chair seat made of laminæ of wood glued together, with the grains in one layer crossing those of the next, concave on the upper surface, convex on the lower surface, and perforated, as a new article of manufacture, substantially as set forth.

Signed by me this 7th day of October, A. D. 1879.

GEO. GARDNER.

Witnesses:

GEO. T. PINCKNEY.

WILLIAM G. MOTT.

313 DEFENDANTS' EXHIBIT CONSENT TO APPOINT SPECIAL EXAMINER.—J. T. L., *Spec. Ex.*

At a stated term of the circuit court of the United States for the southern district of New York, held at the court-rooms in the post-office building on the 25th day of March, 1881.

Present: Hon Samuel Blatchford, circuit judge.

WILLIAM GARDNER, OLIVER GARDNER, AND Jane E. Gardner *against* MARTIN HERZ AND JOHN K. MAYO. } In equity.

On reading and filing the annexed consents of the solicitors for the respective parties to this cause, and on motion of James P. Foster, of counsel for defendant, Martin Herz:

It is hereby ordered that the testimony for final hearing of this cause on behalf of the defendant Martin Herz may be taken before Josiah T. Lovejoy, as special examiner, with the same effect and force, under the 67th Rule of the Supreme Court in equity, as amended, or in accordance with the statutes in such case made and provided, and in pursuance of the rules and practice of this court, as if said testimony were taken before a standing examiner of this court.

And it is hereby further ordered that Josiah T. Lovejoy be, and he is hereby, appointed special examiner in this cause, to take the testi-
314 mony on behalf of the defendant Martin Herz, and as above set forth.

Dated New York, March 25th, 1880.

(Signed) SAM'L BLATCHFORD.

A copy.

[SEAL.] JOSEPH M. DEUEL, *Clerk.*

G. E. C.

U. S. circuit court, southern district of New York.

WILLIAM GARDNER, OLIVER GARDNER, AND Jane E. Gardner *against* MARTIN HERZ AND JOHN K. MAYO. } In equity.

It is hereby consented by and between the parties to this cause and the solicitors for said parties that the testimony on behalf of the defendant Martin Herz be taken before Josiah T. Lovejoy, as special examiner, a notary public in and for the counties of Kings and New York, State of New York, with the same effect and force, and for the final hearing of this cause under the 67th Rule of the Supreme Court in equity, as amended, or in accordance with the statutes in such case made and provided, and in pursuance of the rules and practice of this court, as if said testimony were taken before a standing examiner of this court, and that an order to that effect be entered in the clerk's office of this court, and without notice.

Dated New York, March 21st, 1881.

FOSTER, WENTWORTH & FOSTER,
Defendants' Solicitors.

GIFFORD & GIFFORD,
Solicitors for Complainant'.

315 U. S. circuit court, southern district of New York.

WILLIAM GARDNER, OLIVER GARDNER, AND Jane E. Gardner *against* MARTIN HERZ AND JOHN K. MAYO. } In equity.

Testimony taken on the part of the defendant before Josiah T. Lovejoy, special examiner, under the 67th rule in equity as amended.

Present: Messrs. Gifford & Gifford, solicitors for plaintiff; Foster, Wentworth, & Foster, solicitors for defendants.

GEORGE GARDNER, a witness on behalf of defendant, being called, in answer to a subpœna, responds thereto:

At the written request of solicitors for plaintiff, the examination of this witness is adjourned until Monday, April 4th, at 11 o'clock a. m.

APRIL 4TH, 1881—11 o'clock a. m.

Met, pursuant to adjournment.

Present: Counsel as before.

Counsel for defendant offers in evidence certified copy of the consent and order appointing Josiah T. Lovejoy special examiner, and the same is marked "Defendants' Exhibit Consent and Order. J. T. L., Sp. Ex."

Examination of George Gardner continued. After being duly sworn, says:

1. Q. What is your name, age, residence, and occupation?

316 A. George Gardner; 50 years; 128 East Fifty-ninth street, New York City; at present in the mining business.

2. Q. Look at the patent now shown you, No. 9094, Defendants' Exhibit Gardner 2d Reissue, and state if you are the same person to whom the original patent No. 127045, May 21, 1872, referred to in this exhibit, was granted, and the same George Gardner referred to in this exhibit.

A. Yes, sir.

3. Q. Do you remember distinctly the invention referred to in this exhibit?

A. Yes, sir.

4. Q. Can you state when it was that you first made the chair seat in accordance with the specification and drawings of this exhibit?

(Objected to as incompetent, improper, fishing, and against public policy; that this question should not be asked by the defendant at this stage of the case, and the witness is advised by counsel for complainant that he may decline answering the question until ordered by the court so to do.)

A. By advice of counsel, I decline to answer.

5. Q. Do you remember through whom, if any one, as your patent solicitor, you obtained the original patent No. 127045?

(Objected to as irrelevant and immaterial.)

A. Edson Bros., Washington, D. C.

6. Q. At the time of employing Edson Bros. to obtain this patent, did you also prepare for them a model to be filed in the Patent Office with the application?

(Objected to as irrelevant and immaterial.)

A. Yes, sir.

7. Q. How long prior to 21st May, 1872, was it that you employed said Edson Bros. for that purpose?

(Same objection as to question 4 and same instruction to the witness.)

317 A. I decline to answer, by advice of counsel for complainant.

8. Q. Was it as early as Nov., 1871?

(Same objection and instruction as to Q. 4.)

A. I decline to answer, by advice of counsel for complainant.

9. Q. Had you, at any time during the month of October, 1871, made such a model for Edson Bros.?

(Objected to as to question 4, and as immaterial and irrelevant, and same instruction given witness by complainant's counsel as to question 4.)

A. I decline to answer, by advice of counsel.

10. Q. What was your business in 1871?

(Objected to as irrelevant and immaterial.)

A. I was superintendent of a chair factory.

11. Q. What chair factory, and where was it situated?

(Objected to as irrelevant and immaterial.)

A. Situated at Glen Gardner, Hunterdon County, New Jersey.

12. Q. How long prior to 1871 had you been superintendent for that factory?

(Objected to as irrelevant and immaterial.)

A. Well, I don't know, may be one to two years.

13. Q. What besides chairs was made at that factory?

(Objected to as irrelevant and immaterial.)

A. Nothing.

14. Q. What kind of seats did those chairs have?

(Objected to as irrelevant and immaterial.)

A. I would like to know whether that question means prior to 1871.

15. Q. It does and also includes the year 1871.

A. I am not sure whether there were any other kind of seats,

318 except cane; I think we made a few upholstered seats in the latter part of 1871, and, perhaps, used a few of perforated seats in the last of the year 1871.

16. Q. Why are you not sure that any other kinds of seats than cane seats were used prior to the latter part of 1871; is your memory clear as to that being the fact?

(Complainant's counsel advises the witness that if the answer to this question or any other question which follows will divulge or tend to divulge the date of the patent of chair seats before the application for the original patent, he will be at liberty to decline to answer until ordered by the court.)

A. I decline to answer, by advice of counsel.

17. Q. Will an answer to the last question divulge or tend to divulge the date of the patent chair seats before the application for the patent?

A. I don't know whether it will or not.

18. Q. Then why did you decline to answer the question?

A. By advice of counsel.

19. Q. That advice, however, was only given in case an answer would

divulge or tend to divulge the date of the chair seat. You say now you do not know that an answer would divulge or tend to divulge that fact. Under these circumstances I repeat the question and require an answer thereto.

(Question 16 is repeated to the witness.)

A. I don't understand the question.

20. Q. In answer to question 15 you said you were not sure that any other than cane seats were used prior to the latter part of 1871. I ask you if your memory is clear as to that being the fact, and to give any reasons for so stating.

A. I decline to answer that, under advice of counsel.

319 21. Q. There is no advice of counsel about it, and I shall compel an answer to be given and require it at this time.

(Complainants' counsel requests the special examiner to read aloud the entry immediately following question 16.)

A. I won't answer.

22. Q. Do you mean to say that if you should answer this question it would divulge the date of the patent chair seat before the application for the original patent?

A. I don't know that it would.

23. Q. Would it tend to divulge that fact?

A. I don't know that it would nor that it would not.

24. Q. Those were the only two conditions under which you were advised you might decline to answer, were they not?

A. I have been advised not to answer under all conditions.

25. Q. When were you so advised?

A. Half an hour, or twenty minutes, or three-quarters of an hour ago.

26. Q. Describe the perforated seats which you say were used in the last of the year 1871.

(Objected to, as the witness has not so stated.)

A. I did not say they were used, nor that they were not.

27. Q. What did you state?

(Objected to, as the record will show.)

A. I said that I was not positive whether they were used in the latter part of 1871 or not in the chair factory that I was employed in.

28. Q. Where were they used in the latter part of 1871, if not in the chair factory you were connected with?

(Objected to, as the witness has not said they were used at all in 1871.)

A. I am not positive whether they were used at all in 1871, that is as sold as marketable articles.

320 29. Q. Were they sold as marketable articles in 1870?

(Objected to as to question 4.)

A. I object to answer that, under advice of counsel.

30. Q. You know then, do you?

A. I object to that, under advice of counsel, and decline to answer.

31. Q. You were in the position to know if your patent chair seats were made and sold in 1870 by your order or permission, were you not?

A. I think I was, that is, in the neighborhood.

32. Q. You would know if you gave permission even beyond the neighborhood?

A. Yes, sir.

33. Q. Did you give such permission at that time?

(Objected to as to question 4.)

A. I decline to answer.

34. Q. Did you keep a memorandum or a book account of these patent chair seats since the invention thereof?

(Objected to as irrelevant and immaterial.)

A. Well, I decline to answer that; there are two questions all in one.

35. Q. Please explain what you mean by two questions all in one, and I will divide them.

A. I don't know whether the question means the date of the patent or the date of the invention.

36. Q. Question No. 34 refers to the invention, not the original patent.

A. I decline to answer, by advice of counsel.

37. Q. Would an answer to the question 34 divulge or tend to divulge the date of the patent chair seats before the application for the original patent?

A. I am not sure that it would or that it would not.

38. Q. On what ground, then, do you decline to answer?

321 A. Well, I am not sure whether it would or would not.

39. Q. If you made memorandums or kept book accounts concerning these patent chair seats prior to the application for the original patent, are they still in existence?

(Objected to as irrelevant and immaterial.)

A. I think not. If I did keep any I don't know that I did keep any.

40. Q. Who are Gardner and Gardner, to whom two-thirds of the original patent No. 127045 was assigned?

A. I think they are William Gardner and Oliver L. Gardner.

41. Q. Where were they carrying on business, if anywhere, at the date of the original patent?

(Objected to as irrelevant and immaterial.)

A. They were not carrying on business anywhere.

42. Q. How soon thereafter did they or either of them commence to carry on business?

(Last objection repeated.)

A. I could not answer that question. No date in it thereafter when——

43. Q. Question 41 asked where William or Oliver L. Gardner were carrying on business at the date of the original patent; you answered, nowhere. Then I asked, "How soon thereafter?" which in my mind is the the date of the original patent.

A. I can't tell.

44. Q. Do you mean you don't know?

A. I do.

45. Q. Did you ever hear of the Gardner Manufacturing Company?

A. Did I? Yes, sir.

46. Q. Was it a corporation?

A. I believe it was.

47. Q. Were you or William or Oliver Gardner interested in that corporation?

322 A. I was not. The others I don't know.

48. Q. Was this corporation carrying on business in any or all the years 1870, 1871, 1872, and 1873? If so, designate the years.

A. I think they were carrying on business in all the years 1870, '71, '72, and '73. I am not positive.

49. Q. Where was it carrying on business in those years?

A. New York.

50. Q. Give the street and number.

A. 110 Bowery.

51. Q. You know whether this corporation obtained any right under your original patent No. 127045 to make chair seats?

(Objected to as irrelevant and immaterial.)

A. They had a verbal agreement.

53. Q. Between whom was this agreement made?

(Same objection.)

A. Between the company and myself.

53. Q. Who was president of the company at the time?

(Same objection.)

A. I think Oliver L. Gardner.

54. Q. Do you remember the date of the agreement?

(Same objection.)

A. I don't.

55. Q. Do you remember the year?

(Same objection.)

A. No, sir.

56. Q. Do you know whether it was before or after the issuing of the original letters patent No. 127045, on May 21, 1872?

A. No, sir; I do not.

57. Q. Do you remember seeing the sidewalk strewn with the chair seats in front of the store of that corporation?

A. No, sir.

323 58. Q. Do you know when that corporation dissolved?

A. No, sir; I do not.

59. Q. Do you know for how many years, or how long a time that corporation continued to make those chair seats?

A. No, sir.

60. Q. Have you any books or accounts, or any memorandum in relation to the manufacture of chair seats by that corporation?

A. No, sir; I have none.

61. Q. Will you describe the method or process of manufacturing chair seats under your patent, Defendant's Exhibits Gardner 2d Reissue?

(Objected to as irrelevant and immaterial.)

A. I can't tell how they make them. I have not been in their factory, or seen them making them for years. I can tell how I made them when I first made them. They are made by putting in three veneers with the grain of the middle one running crossways of the other two, with glue in between the joints, then pressed down in between dies, one concave and the other convex. That is the whole process of it, as near as I can tell. Then, after the glue becomes hard, and they are thoroughly dry, then they are scraped and sanded so as to make them smooth, and then bored with holes so as to make them ornamental, and let the water, if any should get on them, get through.

62. Q. In pressing these chair seats to a concave form, would you confine your die to any particular form, or would any form or degree of convexity or concavity be included in your definition already given?

A. When I first made the seats I made them round on account of their being cheaper. I think I made one form a little oblong in my experimenting; I am not positive. My principal idea was to have my seat dished or concave.

324 63. Q. Then, as I understand you, you did not limit yourself in your invention to any particular form of concavity; am I correct?

A. Yes, you are correct. I did not limit myself to any particular form of concavity.

64. Q. How about the holes or perforations; must they be of any specified or particular design?

(Objected to, as the patent is the best evidence of that, and the witness is not called as an expert.)

A. I did not confine myself to any particular design or size of holes; anything that was ornamental.

65. Q. How about the shape of the seat on its outside edge; is that of importance, or can the seat be made to fit a frame of any form or shape, whether it be square, oblong, serpentine, or any other form?

(Complainant's counsel objects to this line of inquiry as improper, illegal, and incompetent, and as an imposition on the legal rights of the complainants, the witness, the inventor, having parted with his rights under the patent before this suit, and if his declarations made after such transfers could not affect his assignees, the putting of him on the stand, through the medium of a subpœna, and making this character of inquiry of him is incompetent and abuse of the process of the court, and complainants' counsel states in the hearing of the witness that he is not bound to answer these questions, and that in fact it is improper for him to answer these questions unless ordered by the court.

Defendants' counsel will inquire what is meant by the question being illegal; that if that is true defendants' counsel desires to cease his line of inquiry, as he disowns any attempt or wish to violate any law; if it is false he requests the erasure of those words.

Complainants' counsel informs the defendants' counsel that his
325 request that the question is illegal for the reasons already stated in detail.)

A. It can be made to fit any shape on the outside.

66. Q. You confined yourself in this patent to a chair seat; was there any special reason for doing so?

A. No, sir; not that I know of.

67. Q. Are you familiar with the construction of chairs and the various parts thereof?

A. Yes, quite familiar.

68. Q. Do you understand what is meant by a chair-back frame?

A. Well, I can't say that I do.

69. Q. What would you term those pieces shown in patent Defendants' Exhibit Gardner Reissue, and marked "Large F," which is the back leg continued up above the seat and having slats extending between it and the corresponding piece on the other side of the chair?

(Objected to as immaterial and irrelevant.)

A. Back posts and slats.

70. Q. Are these chairs made with the back legs extended up above the

seat forming back posts, and having at the top of said back posts a cross or top rail, and a few inches above the seat another cross-rail extending between the said back posts; and, if so, would you term such a construction a chair-backed frame?

(Objected to as irrelevant and immaterial.)

A. Yes, sir; I would.

71. Q. Would the space in the chair-back frame just described between the back posts and those two cross-rails serve for the back the same purpose and object that a seat frame would for the seat of a chair; that is to say, in the back frame within this space could be inserted a back, and in the seat frame could be inserted a seat; am I correct?

(Objected to; incompetent and immaterial.)

326 A. I couldn't answer that; I am not smart enough; we would have to get some one smarter than I am to answer that, the bunged up way in which it's put; will have to make it a good deal clearer than that. Believe no one in New York City could answer that; it is so indefinite I don't believe you could answer it.

(Counsel batters with the witness' quotation "it was a pretty tough question.")

72. Q. In this chair-backed frame referred in question 70 there would be a space between the two back posts and the top rail and the rail a few inches above the seat?

(Same objections.)

A. There would.

73. Q. This space could be filled or fitted with something which would serve a a back, could it not?

(Same objections.)

A. Yes, sir, is my answer to that.

74. Q. Whatever was fitted into this space as a back would serve to rest the back against, would it not?

(Same objections.)

A. Yes, sir; it would.

75. Q. A seat frame is shown, is it not, in the patent Defendants' Exhibit Gardner 2d Reissue, in Figure 1; the four strips are 'round the outside of the perforated seat?

(Objected to, as the patent is the best evidence of that.)

A. Yes.

76. Q. And to this seat frame is fitted or applied the seat?

A. Yes, sir.

77. Q. Is there any other difference between this seat applied to this seat frame and the back applied to the chair-back frame, except in

327 one instance the back supports or rests one portion of the body and in the other the seat supports another portion of the body?

(Objected to; incompetent, irrelevant and immaterial.)

A. Yes, sir; there is a vast difference. The seat must be concave when made out of three-plied veneers, and the back must not be concave. The seat made the same as the back would be worthless, not having any concave in it. Yes.

78. Q. I did not in my question refer to the form of the back or the seat, but asked you as to the use of the back and seat and about the supporting or resting of the different portions of the body?

(Same objections.)

A. In case of seats of some kinds what would do for seats would not for backs; upholstered seats the back is generally the same, but not so with wood seats of any kind, the back is not required to be concave, but the seat is and must be concave in order to give ease in sitting.

79. Q. Your material of three-ply veneer with perforations, but without any concavity, could be used for chair backs, could it not?

A. Chair backs? Yes, sir.

80. Q. And it could be fitted or applied to the chair-back frame about as well as it could be to the seat frame, could it not?

A. Not in a concave.

81. Q. But without the concave it could?

A. Yes, sir.

82. Q. If the chair-back frame was first made concave, and a back of your material of three-ply veneer perforated should be applied to this concave chair-back frame, it would have to be especially pressed or bent for that purpose, would it not?

(Objected to as incompetent, irrelevant and immaterial.)

A. No, sir.

328 83. Q. Why not?

(Same objection.)

A. It will nail on to the frame, but stay flat on the surface of the concave back frame.

84. Q. I do not mean to simply nail on without adapting it to the exact form of the chair back frame; but I do mean to have the back and the back frame form the arc of a circle, for instance, around a seat frame which is circular?

(Same objections.)

A. No, sir; it will go on flat.

85. Q. In adapting this back so that it would go on flat and not concave, you would avoid describing any part of a circle, would you not? In this chair which I now show you, the slat just above the seat is slightly concave; now, to fit that concavity nicely with your material perforated, it would be bent or pressed, would it not?

A. No, sir; it would be put on flat; that is not a dishing concave; it is a concave only one way, therefore the material can be nailed on when made in a flat piece.

(The chair is offered in evidence, and bears the mark "Vaill against Sellig," Defendants Exhibit No. 170, and is so marked in this case.

Complainants' counsel objects to introduction of this chair as irrelevant and immaterial.)

86. Q. Do I understand you to say that your patent chair seats must have a dishing concave form?

(Same objections as to question 65.)

A. Yes, sir.

87. Q. And that the form of this rail just above the seat on this chair Defendants' Exhibit Vaill vs. Sellig, No. 170, has not got the dishing concave form; am I correct?

(Objection as irrelevant and immaterial.)

329 A. Yes, sir; it is only a bent form.

88. Q. A chair seat made of that form would not come within your invention?

(Same objection as to question 65.)

A. Yes, sir; it would.

89. Q. Explain why it would, when you say your chair seat must have a dishing concave form?

(Same objection as to question 65.)

A. The rails of the seat being made out of bent pieces would give it a concave or dishing form one way, so as to keep persons from sliding off the seat.

GEO. GARDNER.

Subscribed and sworn to this fourth day of April, 1881.

JOSEPH T. LOVEJOY,
Special Examiner, &c.

J. E. HINDON HYDE, witness produced on the part of the defendant, being duly sworn, deposes and says:

1. Q. What is your name, age, and residence, and occupation?

A. J. E. Hindon Hyde; age, 25; No. 28 E. 17th street; solicitor of patents and mechanical expert.

2. Q. Have you served as expert in patent causes in the U. S. courts?

(Objected as immaterial.)

A. I have frequently served as expert in cases in U. S. courts, in which patents were in controversy, and given testimony therein. I have also prepared numbers of applications to the U. S. Patent Office for patents, making the drawings and drafting the specifications therein.

Defendants' counsel offers in evidence certified copy of the original Gardner patent, number 127045, May 21, 1872, and the same is
330 marked "Defendants' Exhibit Gardner Original Patent, J. T. L., Special Examiner, April 30th, 1881."

Also certified copy of Gardner reissue No. 7203, dated July 4th, 1876, and the same is marked "Defendants' Exhibit Gardner First Reissue, J. T. L., Special Examiner, April 30th, 1881."

(The two foregoing documents objected to as irrelevant.)

Also certified copy of Gardner reissue No. 9094, dated February 24, 1880, and the same is marked "Defendants' Exhibit Gardner Second Reissue, J. T. L., Special Examiner, April 30, 1881.

3. Q. Have you examined the Defendants' Exhibit Gardner Original Patent; and, if so, do you understand the same?

(Objected to as immaterial.)

A. I have examined the exhibit referred to in the question, and believe that I understand the invention therein described and claimed.

4. Q. What do you understand to be the invention described therein, and specified in the claim?

(Objected to as immaterial.)

A. I understand the invention to be a chair seat made of wood veneers, glued together, with the grain of each scale board or veneer crossing the grain of the veneer adjacent to it. The inventor adds, in his description, that these seats may be left solid or may be perforated, but I do not understand the addition of the perforations to be one of the elements of the invention claimed in that patent.

5. Q. Have you any reason to give for saying you do not understand the perforations to be one of the elements of that invention?

(Objected to as irrelevant and incompetent.)

A. My reasons for so saying are that any allusion to these perforations seems to have been purposely omitted in the claim of that patent,
331 and understanding, as I do, that the claim of a patent is intended to specify those elements of the device patented which the inventor had deemed an essential part of his invention, I consider that by omitting any reference to these perforations he does not consider them to be an essential part of the invention. In the same way, the inventor, in the body of the specification, has alluded to a slight concavity which may be given to the seat; this also has been omitted in the claim.

(Answer objected to as incompetent and inadmissible.)

6. Q. What, if any, particular form do you understand the perforations alluded to in this exhibit are to be?

(Objected to as irrelevant and inadmissible.)

A. The inventor does not specify any particular form which is to be given to these perforations. The draughtsman has represented them as round, but the inventor distinctly says that the seats may be perforated after some design agreeable to the fancy of the one having them made. These words, as I understand them, may be construed to refer either to the shape of the perforations or their arrangement with reference to each other.

(Answer objected as incompetent and inadmissible.)

7. Q. Would the form of these perforations shown in the drawings as round, in your opinion, limit the same to that particular form?

(Objected to as incompetent and inadmissible, as asking a question of law.)

A. No; for the reason that the draughtsman probably made his drawing from a model in which these perforations were of that shape, they being most quickly and readily made when round, and also for the further reason that the delineation of round perforations would be the
332 easiest for the draughtsman; but that this form is not essential is, in my opinion, sufficiently proved by the fact that perforations of any other shape would perform equally well all the functions performed by these round perforations, and that the inventor has not limited himself to any one form.

8. Q. What function do these perforations perform?

A. Ventilation, lightness, and ornamentation.

9. Q. Refer now to the element of concavity; is there, in your opinion, any particular degree or form of concavity designated in this exhibit?

(Objected. The document will speak for itself.)

A. There is not; and the degree of concavity is left entirely to the judgment of the manufacturer. Any form of concavity, whether cylindrical, spherical, or barrel shape, might be said to come equally within the terms of the description.

10. Q. What function does the element of concavity perform?

A. The inventor does not state any function which the concavity performs, but I should suppose that it was intended to make the seat conform more nearly to the shape of the person than a flat seat would do. A flat seat, however, made in the way the patent describes, would generally assume a slightly concave form with the weight of the person resting thereon,

so that the difference between the two forms of the seat would probably be one of degree only.

(All from after the words "A flat seat, however," objected to by complainants' counsel, as uncalled for, irresponsive, volunteered, and inadmissible.)

11. Q. Now, designate, please, of what material the flat seat would be made, to which you refer in your answer.

(Objected to as immaterial.)

333 A. Wood veneers constructed as shown in the drawing Figure II, which exhibits three layers of veneers.

12. Q. Designate each and every element that you find in this Exhibit Gardner Original Patent, specified in the body of the specification and the drawings annexed thereto, and then state which of these elements are combined to make the chair seat specified in the claim of this exhibit as the invention of George Gardner.

(Objected to as irrelevant and immaterial.)

A. I consider that the body of the specification stated the following element as necessary to form the invention: The arrangement of wood veneers with the grains crossing each other and glued together. There are two further elements suggested as possible additions, perforations, and a slight concavity. The claim confines itself to the first of these three elements, and in my opinion is intended to be so confined from the fact that in the 4th paragraph of the specification the inventor states that this invention "consists in constructing a seat out of veneers of wood with the grain running across each other and glued together."

13. Q. Look at the exhibit now shown you, Gardner First Reissue, No. 7203. State if you have examined this reissue, and understand the same.

(Objected to as immaterial and irrelevant.)

A. I have carefully examined the said reissue, and believe that I understand the invention therein described.

14. Q. Refer now to the body of the specification of this reissue, and state what if any difference you find in the description of the seat therein from the previous exhibit examined, to wit, Gardner Original Patent.

(Objected to as irrelevant and immaterial.)

334 A. The first difference which occurs to me is that the reissue referred to does not limit the invention to chair seats, but seems to include all kinds of seats. The next difference which I discover is in defining the invention as one relating to bottoms for seats, the bottom being secured to a frame which surrounds it; the other difference consists in the greater importance attached to the perforations, and the concave form of the seat bottom, the latter elements being designated as specially desirable, for the reasons given in the body of the specification.

15. Q. What, if any effect, in your opinion have the differences pointed out by you in this first reissue upon the invention described in the Exhibit Original Patent?

(Objected to as irrelevant and immaterial.)

A. The first difference has an effect to broaden the application of the invention, other application, than to seats for chairs not seeming to have been contemplated in the original patent.

The addition of the frame surrounding the seat bottom, which forms the second difference, tends to strengthen the seat bottom by the addition of a new element which is not suggested in the original patent. The

other differences do not materially tend to change the character of the invention described in the original patent, except, perhaps, that the statement by the inventor, that the perforations are made by boring a round hole, tend to limit the form of the perforations when perforated seats are made.

16. Q. Refer now to the sixth claim of this Exhibit First Reissue, and state what, in your opinion, is the subject-matter of that claim, and if the same is found in the body of the specification of this Exhibit First Reissue.

(Objected to as irrelevant and immaterial.)

335 A. The device claimed, as I understand it, is a bottom for seats having a concave configuration on its upper side, and made of several layers of wood veneers glued together, and having their grains crossing each other; I think that the subject-matter of this claim is found in the body of the specification; the concavity alluded to in the body of the specification having its position defined by a reference to the drawing, that is, on its upper side.

17. Q. Look at the exhibit now shown you, Gardner Second Reissue, the patent sued on; state if you have examined and understand the same.

A. I have carefully examined said reissue, and believe that I understand the same.

18. Q. Refer to the body of the specification of this exhibit; point out any differences in the description of the seat therein from the two exhibits previously examined by you, to wit, the Gardner Original Patent, and the Gardner First Reissue.

A. The differences consist in the elements which the inventor disclaims as part of his invention. The inventor returns to the claim of a chair seat only as exhibited in the original patent. He disclaims the invention of the arrangement and use of wood veneers, and also disclaims the invention of the use of perforations. The only other difference that I discover between the second reissue and the original patent and first reissue is in the limitation of the form of concavity in the second reissue. The concavity is defined in the second reissue as of a dishing form, this being the common expression for a concavity which has a curvature at every point of its surface, no two points lying in the same plane. There is a further difference which I now notice, in that the inventor states in the second reissue that the underside of the seat is convex. If the court should conclude that there is any advantage in having this form given to the underside of the seat, I should consider that the inventor, in this second reissue, had

336 added a new element to the invention described in the original patent and in the first reissue.

19. Q. What bearing have these differences, in your opinion, upon the invention set forth in the Exhibit Gardner Original Patent?

A. I should consider that these differences were evidence of an intention on the part of the inventor to disclaim every feature of the invention described in the original patent except the construction of a chair seat having a concave upper surface and a convex lower surface.

20. Q. Do you find in this Exhibit, Gardner Second Reissue, sued upon in this cause, any description of the method or process by which the seat

is given the form of convexity on the under and concavity on the upper side?

(The question, so far as it seeks to show the negative of the question, is objected to as incompetent under the answer.)

A. I do not, unless it may be said that the disclaimer of pressing the chair seat into a concave form by dies in 50th folio of the specification is an incidental allusion to the method which the inventor practiced.

21. Q. Suppose you had constructed a flat chair seat in every other way in accordance with the Exhibit Gardner Second Reissue, and of such light material that in sitting thereon it would assume the concave upper and convex lower form; would that seat in your opinion come within the terms of this second reissue?

A. So long as there was a person sitting on such a seat it would be in accordance with the terms of that patent, and probably after use for any considerable length of time such a seat would assume and retain the concave and convex form described in the reissue.

Adjourned to May 5th, 1881.

337 Met pursuant to adjournment, New York, May 5th, 1881—2 o'clock p. m.

Examination of the expert, J. E. H. Hyde, continued by J. P. FOSTER, Esq.:

22. Q. Look at the reissue patent now shown you sued upon, No. 9094, and state what is the invention therein set forth and particularly referred to in the claims of said patent.

(Objected to, as the witness is not qualified to answer.)

A. As I understand the reissue referred to, the claims are intended to cover a chair seat formed of wood veneers glued together with their grains crossing each other, and having a concave form on the upper surface, a convex form on the lower surface, and perforated. There are three elements which go to make up this device: 1st, the arrangement of the wood veneers; 2d, the concave and corresponding convex form; and 3d, the perforations. The body of the specification defines the concavity as of a dishing form, but I do not understand that the inventor in the claims intends to limit the shape of the concavity to this form.

23. Q. Look at the Exhibit Belter Patent, now shown you, and state what bearing, in your opinion, this patent has upon the reissue patent 9094, sued upon.

(Objected to as improper in form, inadmissible, and a question for the court.)

A. The Belter patent, as I understand it, describes a method of making pressed furniture of wood veneers arranged with their grains crossing each other and glued together, and having a dishing form at any part of such furniture in which dishing is desirable. The drawing of this patent exhibits a chair back made in this way, and having a dishing form, and the inventor expressly states that his invention is not limited to the construction of chair backs, but may be applied to all kinds of pressed-

338 work furniture in which dishing is desirable. The patent contains several other features in addition to those which I have enumerated, but these I do not understand to be pertinent to the question. The

bearing which this patent has upon the reissue patent, 9094, I should consider to be that it fully describes and details the method of making the first two elements which compose the invention described in that reissue, namely, the arrangement of wood veneers glued together with their grains crossing each other, and the concave or dishing form given to the veneers. I may add that the Belter patent also exhibits the convex form opposite to that surface of the veneers which is concave; but I do not attach much importance to this feature of convexity, for the reason that it is an obvious consequence of the concavity, and that neither in the Belter nor Gardner device does this convexity perform any useful function.

(Certified copy of photograph of the model in the matter of the letters patent granted John H. Belter, Feb'y 23, 1858, No. 19405, are offered in evidence, and the same are marked "Def'ts' Exhibit Photograph Belter Model, J. T. L., Special Examiner, May 5, 1881.")

24. Q. Please look at the Defendants' Exhibit Photograph Belter Model, in connection with the Belter patent just examined by you, and state if in this model you find the elements of the Gardner seat not referred to in said patent, to wit, perforations, and if all the elements of the Gardner seat, as stated by you in answer to question 22, are exhibited in this model.

A. I find in the photograph a chair having a back formed of wood veneers glued together, with their grains crossing each other, having a dishing form, and also having perforations. The photograph does not show that the grains of the wood veneers cross each other, but this element is fully described in the patent. The photograph of the model in my
339 opinion exhibits, therefore, all the elements of the Gardner device, namely, the arrangement of wood veneers, glued together with their grains crossing each other, the concave and corresponding convex form, and the perforations. The form of these perforations, for the reasons which I have before stated, I do not consider to form any substantial difference between the Belter device and the Gardner seat. With a knowledge of the Belter chair back it would be easy to form the Gardner seat, especially when aided by the suggestion contained in the Belter patent that other parts of furniture may be made in the same way as the chair back. Whether the perforations are punched, cut, bored, or sawed I do not consider of any moment. The smooth surface required for the seat might, perhaps, be further suggested, if not sufficiently obvious, by the back of the Belter chair back, the photograph of which exhibits such a surface.

25 Q. Look at the Defendants' Exhibit Bellows Patent, and state what bearing, in your opinion, this patent has upon the reissue patent sued upon, No. 9094.

(Same objections as to question 23.)

A. The Bellows patent, in my opinion, describes a chair seat having the second element of the Gardner device, namely, a concave form on the upper side of the seat, and a convex form on its lower side. The Bellows method is applicable to all chair seats which can be bent, stamped, or pressed, and is therefore applicable to a chair seat formed of wood veneers. It might, perhaps, be said that the specification of the Bellows patent defines the form of concavity given to the seat by stating that the form or shape of the seat is made to fit and conform to the shape of the person. This would make the seat of a dishing form.

(Certified model of the Bellows chair seat is offered in evidence, and

the same is marked "Defendants' Exhibit Bellows Model, J. T. L., Special Examiner, May 5, 1881.")

340 26 Q. Look at the Exhibit Bellows Model, and state, in connection with the Bellows patent, what bearing, in your opinion, the said model and patent have upon the first claim of the reissue patent sued upon in this case, 9094.

(Same objection as to question 23.)

A. The Bellows model exhibits the invention described in the Bellows patent. It is a chair having a seat formed of a piece of thin board or wood veneer stamped or pressed in such a manner as to have a concave or dishing form on its upper surface and a convex form on its lower surface, and adapted to a chair frame. With the exception that the seat of the Bellows model is not formed of laminæ of wood, but is a single piece, it is the device claimed in the first claim of the Gardner reissue No. 9094.

27 Q. Look at the Exhibit Bramhill Patent, and state what bearing, in your opinion, said patent has upon the reissue patent 9094, sued upon in this case?

(Same objection as to Q. 23.)

A. As I understand it, the Bramhill chair seat exhibits the second and third elements of the Gardner device. The Bramhill seat has a concave or dishing form on its upper surface and a convex form on its lower surface, and it has perforations. The perforations of the Bramhill seat, moreover, exhibit the same form as shown in the drawing, and as those of the Gardner chair seat. The Bramhill seat also is manufactured separately from the chair frame and is adapted to it; the substitution of wood veneers glued together with their grains crossing each other for the sheet rubber of the Bramhill seat would substantially form the Gardner seat.

(Certified model, Bramhill seat, is offered in evidence, and the same is marked, "Def'ts' Exh. Bramhill Model, J. T. L., Special Examiner, May 5, '81.")

341 28. Q. Look at the Exhibit Bramhill Model and compare the same with the Bramhill patent, and state if the model, in your opinion, is made in accordance with said patent; and, if yea, what, if any, difference do you find between said Bramhill model and the Gardner chair seat.

(The latter part of the question objected to, because the witness is not shown to be competent to answer the same.)

A. I think that the model is made in accordance with the specification. The only substantial difference that I see between the Bramhill seat and the Gardner seat is the difference of material of which the two are composed, the Bramhill seat being composed of sheet rubber and the Gardner seat being composed of laminæ of wood. I may further add that the Bramhill seat, as exhibited in the model, is formed of alternate layers of rubber and of canvas cemented or glued together. Of course, in the case of this Bramhill model, it was not necessary to obtain the concave form by pressing, since the elasticity of the material makes this form possible without resorting to that method, but the concavity exists, and the method of giving it is not claimed by Gardner.

29. Q. As an article of manufacture, would, in your opinion, the Bramhill seat exhibit all the features or elements in combination claimed in the Gardner 2d reissue No. 9094, and both claims thereof, with the exception of difference of material?

(Same objection as to Q. 28.)

A. With the further exception that the sheet rubber has properly no grain, and therefore their grains cannot cross each other, it would.

30. Q. Look at the two exhibits, Mayo Original and the Mayo Reissue Patent, and state what bearing these exhibits have upon the Gardner reissue 9094.

(Same objections as to Q. 23.)

342 A. The two exhibits referred to exhibit the first element of the Gardner seat, namely, the arrangement of two or more laminæ of wood glued or cemented together, with their grains crossing each other. The Mayo reissue slso states that the several scales of wood may be made to assume any desired form by compression in a matrix. There is a suggestion here which would supply the second element of the Gardner device, namely, the concavity of the upper surface of the seat and the convexity of the lower surface formed by pressure.

31. Q. With the knowledge obtained from the Bramhill patent as to perforations, convexity, and concavity of the seat and adaptation to a chair frame, and the knowledge obtained from the Mayo patents—the Mayo original and the Mayo reissue—as to laminæ of wood, with the grains of the layers crossing each other, and the use of the same for chair seats as shown therein, what, in your judgment, was new or patentable at the date of the original Gardner patent No. 127045, or the first reissue No. 7203, or the second reissue sued upon in this case, No. 9094?

(Objected to as improper, inadmissible—calling for a question of law—and the witness is not shown to be qualified to answer.)

A. Nothing. George Gardner combined old elements, and in his combination these old elements neither required modification nor performed new functions.

Adjourned until Saturday, May 7th, 2 p. m.

Met pursuant to adjournment, Saturday, May 7th—2 p. m.

Present: counsel as before.

Direct examination of the witness, Hyde, continued by J. P. FOSTER, Esq.

32. Q. Please look at this Exhibit Cochran Patent now shown you, and state if you have examined the same, and what, in your opin-
343 ion, is the bearing of said patent upon the reissue patent No. 9094 sued upon.

(Same objection as to Q. 23.)

A. I have examined the said patent, and, in my opinion, the device therein described and claimed shows the 3d element of the Gardner chair seat, namely, perforations. The Cochran chair seat is also made separate from the chair frame and is adapted to the frame. The elasticity of the rubber would also tend to give the dishing form claimed as an attribute of the Gardner chair seat, when the seat is sat upon.

33. Q. Please look at Exhibit Tice Patent, now shown you, and state what, in your opinion, is the bearing of said patent upon the reissue patent No. 9094 sued upon in this case.

(Same objection as to Q. 23.)

A. I consider that the Tice device shows the 2d and 3d elements of the

Gardner seat, namely, the convex and concave form of the seat and the perforations. This form of the Tice seat is best shown in Figure 3 of the drawing, and Figure 1 exhibits a modification of this form. The perforations in the Tice seat perform the same functions as the perforations in the Gardner seat. There is little difference, if any, between the Tice seat and the Gardner seat, other than that of material. The seats are adapted to the frame of the chair in each case, and are secured to the frame.

34. Q. Please look at the Exhibit Botturi Patent, now shown you, and state what, in your opinion, is the bearing of said patent upon No. 9094 sued upon in this case.

A. The only similarity that I see between the Gardner chair seat and the seat described and claimed in this English patent is that the seats in both cases are made separate from the chairs and adapted to fit in the chair frame. In this point, however, the two devices are similar.

344 35. Q. Look at the Defendants' Exhibit Farmer Patent, and state if you have examined the same, and what bearing the same has upon the reissue No. 9094 sued upon in this case.

(Objected to as to Q. 23, and because the Farmer patent is not in the answer.)

A. I have carefully examined the patent to Wm. S. Farmer referred to. The Farmer chair seat, in my opinion, exhibits the 2d and 3d elements of the Gardner seat, namely, the convex and concave form of the seat and the perforations. The concave form is given to the seat by the elasticity of the material of which it is composed when the weight of the person is imposed upon it. Continued use will give the seat this form permanently. The Farmer seat is moreover made separate from and adapted to the chair frame. The perforations in the Farmer seat perform the same functions as those in the Gardner seat, namely, lightness, ventilation, and ornamentation.

36. Q. Look at the Defendants' Exhibit Gardner Patent, number No. 127044, and state if you have examined the same, and what bearing the same has upon the reissue No. 9094 sued upon in this case.

(Same objection as to last question. Defendants' counsel states that this Gardner patent No. 127044, and likewise the reissue of that patent, No. 7202, and the certified model from the Patent Office of the chair seat shown and described in said patents, are offered to show the state of the art prior to the Gardner original patent, No. 127045, and reissue No. 9094, sued on in this case, and for this reason these exhibits of patents and model are not required by the statute to be set up in the answer.)

A. I have carefully examined the patent referred to in the question, and in my opinion the specification and claim of that patent set forth a device which shows all the elements of the seat described

345 in the reissue No. 9094. The seat of patent No. 127044 is formed of veneers of wood, glued together with their grains crossing each other, a seat which is concave on its upper surface and convex on its lower surface, and having perforations. The interposition of layers of fibrous material between the veneers of wood does not, in my opinion, cause such a difference between this seat and that described in the reissue No. 9094 as to make them other than substantially the same seat. The fibrous material performs no necessary nor useful function whatever, but at the same time it does not present any disadvantage which makes its

omission desirable, or a novel feature other than a possible saving of material. To any one acquainted with the seat described in patent 127044 it would be an obvious suggestion and a question of pure mechanical judgment whether the omission of the fibrous material would be desirable or not. The perforations in the seat described in that patent would prevent the addition of the fibrous material from giving any materially greater strength to the seat, and any which it might give is unnecessary. I should consider the seat described in the reissue 9094 to be in reality the same seat as that described in patent No. 127044. The dishing form of the seat in the latter patent is shown in the drawing, Figure 2.

37. Q. Look at the Exhibit Gardner Reissue No. 7202, and state if you have examined the same, and what, in your judgment, is there new in the reissue No. 9094, which is not shown in this exhibit 7202.

A. Nothing.

38. Q. Look at the Exhibit Gardner Model, now shown you, and state whether that model, in your judgment, is made in accordance with the Defendants' Exhibit Gardner Patent 127044 and reissue No. 7202.

A. It is.

(Defendants' counsel offers in evidence the stipulation of April
346 26, 1881, admitting the Baillie chair in evidence in this case, and the same is marked "Defendants' Exhibit Stipulation, J. T. L., Special Examiner, May 7, '81."

And also statements of facts in relation to said Baillie chair, as follows: Agreed upon by the solicitors for the respective parties to this cause.)

DEFENDANTS' EXHIBIT STIPULATION—J. T. L., *Special Examiner, May* 7, '81.

United States circuit court, southern district of New York.

WM. GARDINER ET ALS. } *against* } In equity.
MARTIN HERZ ET AL. }

Having examined the articles referred to in the affidavits on motion to amend answer, viz, a chair with an upholstered seat and a curved back, marked "Baillie Chair," a circular device, marked "Belter Wheel," and two chair backs, one of oak and the other of rosewood, and marked, each of them, "Belter Chair Back" (both incomplete), complainants agree that the same may be admitted in the case as illustrating what was known in the art at the time of the issue of the patent to John H. Belter, Feb. 23, 1858, No. 19405, set up in the answer herein, and that the articles above named might have been made by a competent workman as early as the year 1858, in accordance with what was then known.

Dated April 26, 1881.

GIFFORD & GIFFORD,
Complainants' Solicitors.

347 The defendant accepts of the above offer and agreement of complainant.

New York, April 27, 1881.

FOSTER, WENTWORTH & FOSTER,
Defendants' Solicitors.

DEFENDANTS' EXHIBIT STATEMENT OF FACTS.—J. T. L., *Special Examiner, May* 7, 1881.

It is agreed between the parties to this cause that if David Bailie were called he would testify as follows in relation to the chair marked in this cause "Defendants' Exhibit Bailie Chair:" That "the back is made of layers of veneers laid one upon the other, the grain of one layer crossing that of the next one to it, held together by glue, and were subjected to pressure between two cauls, one of which was convex and the other concave, and the pressure and these cauls gave the convex-concave form." In other respects the exhibit speaks for itself.

(Defendants' counsel offers in evidence the original Baillie chair, and the said chair is so marked, J. T. L., special examiner, May 7, 1881.)

39. Q. Have you examined the Defendants' Exhibit Baillie Chair in connection with the agreed statement of facts in relation thereto; and, if yea, what bearing, in your opinion, has the said chair upon the reissue patent No. 9094 sued upon in this case?

(Same objections as to Q. 23.)

A. I have examined the chair referred to in connection with the statement of facts, and in my opinion that chair exhibits all the elements in combination in a chair back as are exhibited in the Gardner chair seat; but the form of concavity, unless the frame of the back be taken in
348 connection with the perforated panel of the back, is not a dishing one. But if the two should be taken together, as they really should be, in considering the form of the back of that chair, they exhibit a back having a dishing form. The substitution of this form of back for a chair seat would make a chair seat having all the elements of the Gardner chair seat.

40. Q. You find in this Baillie chair perforations, and the back adapted to a chair back solid frame surrounding the panel composing the back, do you not?

A. I do.

41. Q. What, if any, difference in the operation or function is there between the solid chair-back frame surrounding the back of this Baillie chair and a seat frame to which the Gardner seat is usually applied or adapted?

(Objected to, as the witness is not shown to be competent to answer.)

A. I do not find any.

42. Q. A witness on the part of the complainant', Joel W. Mason, insisted that the Gardner seat, to be practically applied or adapted to a chair frame, should be secured thereto by nails. Examine the Baillie chair in that respect, and state what, if anything, you find which in your judgment are the equivalents of nails.

(Same objections as to last question.)

A. I find at the top and bottom of the back of that chair what appear to be nails or dowels, which secure it to the frame of the back. These are the equivalents of the nails in the chair seat; furthermore, I should consider the glue which is used in this chair back to secure it to the chair-back frame as also an equivalent for that purpose. The nails and dowels above referred to can be seen on the back of the chair back.

43. Q. You are familiar with what are termed wooden settees, or long rows of seats such as can be seen in the Third and Ninth avenue

349 elevated railroads, and you have seen in use such long seats or seat bottoms made substantially in accordance with the Gardner reissue patent No. 9094, have you not?

(Objected to as irrelevant.)

A. I am familiar with such settees, and I have seen such long seats or seat bottoms made substantially in accordance with the device described in the reissue referred to.

44. Q. Do you recall the concave form in such settees or long seats, and if so was there a curvature at every point when taken from end to end, or only from the front to the back of such settees?

(Objected to as irrelevant.)

A. There was not a curvature at every point when taken from end to end, as I remember them.

45. Q. Have you or have you not seen chair seats made in the same way as the seats on these settees?

(Objected to as irrelevant.)

A. I have seen chair seats having that configuration.

46. Q. Now suppose you removed from the back of the Baillie chair the panel which forms that back and applied or adapted the said panel to a chair-seat frame, or the seat frame on one of these long settees, making the Baillie back in its longest direction run the length of the settee, so that the curvature of the Baillie back when so applied or adapted to such seat frame would be from the front to the back of such settee, would or would not, in your judgment, in such a case, the settee be provided with a seat in substantial accordance with the claims of Gardner second reissue 9094, sued upon in this case?

(Objected to, as the witness is not shown to be qualified to answer the question.)

A. In my judgment it would.

47. Q. Could the Baillie back be so applied or adapted as supposed in the preceding question?

(Last objection repeated.)

350 A. It could.

48. Q. What would be necessary or requisite to so apply or adapt the said Baillie chair back?

A. It would be necessary to have a seat frame substantially like the frame round the panel of the back of that chair.

49. Q. Would the adaptation of the Baillie back to a seat frame, as supposed in the previous questions, involve ingenuity, or could it, in your opinion, be performed by any ordinary mechanic?

(Last objection repeated.)

A. Such an adaptation would require no more ingenuity than that possessed by any ordinary mechanic.

50. Q. Is the device claimed in the Exhibit Gardner 2nd Reissue 9094, sued upon in this case, necessarily of a dishing form?

A. I do not think so. The word "concave" is much broader than the word "dishing," and includes it as well as other forms of concavity.

J. E. HINDON HYDE.

Sworn to before me.

JOSIAH T. LOVEJOY,
Special Examiner, &c., Notary Public, County of Kings.
(*Certificate filed in New York County.*)

Defendants' counsel offers in evidence certified copy of the opinion of this court in the case of William Gardner and others against Martin Herz and John K. Mayo, filed May 9th, 1879, and the same is marked "Defendants' Exhibit Opinion, J. T. L., Special Examiner, May 5th, 1881."

(Objected to as incompetent and inadmissible.)

Also letters patent of the United States to John H. Belter, Feb. 23, 1858, number 19405, and the same is marked "Defendants' Ex-
351 hibit, Belter Patent, J. T. L., Special Examiner, May 5th, 1881."

Also certified copy of the letters patent of the United States to Zebulon B. Bellows, March 15, 1859, 23225, and the same is marked "Defendants' Exhibit Bellows' Patent, J. T. L., Special Examiner, May 5, 1881."

Also certified copy of the letters patent of the United States to William Bramhill, November 28, 1865, number 51132, and the same is marked "Defendants' Exhibit Bramhill Patent, J. T. L., Special Examiner, May 5, '81."

Also certified copy of the letters patent of the United States to John K. Mayo, Dec. 26, 1865, number 51735, and the same is marked "Defendants' Exhibit Mayo Original Patent, J. T. L., Special Examiner, May 5, '81."

Also certified copy of the letters patent of the United States to J. W. Cochran, May 22, 1866, number 54863, and the same is marked "Defendants' Exhibit Cochran Patent, J. T. L., Special Examiner, May 5, '81."

Also certified copy of the letters patent of the United States to Isaac P. Tice, June 27th, 1865, No. 2016, and the same is marked "Defendants' Exhibit Tice Patent, J. T. L., Special Examiner, May 5, 1881."

Also certified copy of the reissue letters Patent of the United States to Mayo, Aug. 18th, 1868, No. 3089, and the same is marked "Defendants' Exhibit Mayo Reissue Patent, J. T. L., Special Examiner, May 5, 1881."

Also certified copy of the English patent to Sebastian Botturi, dated Aug. 5, 1857, No. 2117, and marked "Defendants' Exhibit Botturi Patent, J. T. L., Special Examiner, May 5, 1881."

(The English patent objected to as not set up in the answer.)

352 Also certified copy of the Farmer patent, dated May 1st, 1866, No. 54314, and marked "Defendants' Exhibit Farmer Patent, J. T. L., Special Examiner, May 7, 1881."

Also certified copy of the Pratt patent, July 29, 1862, No. 36026, and the same is marked "Defendants' Exhibit Pratt Patent, J. T. L., Special Examiner, May 7, 1881."

Also certified copy of the Gardner patent, May 21, 1872, No. 127044, and the same is marked "Defendants' Exhibit Gardner Patent, J. T. L., Special Examiner, May 7, 1881."

Also certified copy of the Gardner reissue, July 4, 1876, No. 7202, and the same is marked "Defendants' Exhibit Gardner Reissue, No. 7202, J. T. L., Special Examiner, May 7, 1881."

Also certified model from the Patent Office of the chair seat shown and described in said Exhibits Gardner Patent, No. 127044, and reissue number 7202, and the same is marked "Defendants' Exhibit Gardner Model, J. T. L., Special Examiner, May 7, 1881."

Adjourned to Thursday, May 12th, 1881, at 2 p. m.

Adjourned to June 6, 1881, at 2 p. m.

NEW YORK, *June 6th*, 1881.

Met pursuant to adjournment.

Present: Counsel as before.

Cross-examination of Mr. Hyde by Mr. O'REILLY, counsel for complainant:

51. X Q. How long have you been a solicitor of patents?

A. Since 1877.

52. X Q. How many patents have you solicited since that time?

353 A. I don't know.

53. X Q. What is the difficulty about computing the number?

A. No difficulty, if I had my books; but without them, want of memory.

54. X Q. Approximate the number.

A. I cannot even do that satisfactorily, but I should think there were in the neighborhood of fifty.

55. X Q. State generally in what departments of the useful arts those patents belonged.

A. Mechanics and chemistry.

56. X Q. Which predominates, mechanics or chemistry?

A. Mechanics.

57. X Q. You say, in answer to 2 Q., that you are a mechanical expert. What do you mean by mechanical expert?

A. One who by education and experience had made himself familiar with theoretical and applied mechanics.

58. X Q. Are you such?

A. To an extent of which others, perhaps, are better able to judge than myself. I am——

59. X Q. Tell the court how you have become such?

A. I acquired my knowledge of theoretical mechanics by instruction and study. My knowledge of applied mechanics is derived from the observation and examination of a large number of different mechanical devices.

60. X Q. Where did your study and instruction of theoretical mechanics take place?

A. I received my instruction in Columbia College, and I studied alone.

61. X Q. The collegiate instruction was but a part of the regular graduate course. Was it not such as your fellow students received?

A. To a certain extent it was, but from my fondness for the subject I pursued it, perhaps, somewhat further than they did, and I may

354 be, perhaps, excused for saying that owing to that fondness I took the scholarship in that subject.

62. X Q. Explain what you mean by "took the scholarship."

A. The scholarship is a prize of one year's free tuition in the college to the student who has shown the greatest proficiency in examination upon the subject in which it is offered for competition.

63. X Q. What was the subject offered in your instance?

A. Mechanics and analytical geometry.

64. X Q. How many scholars competed for that prize?

A. I am not sure, but I think there were two others who presented themselves for final examination, but I cannot state how many there were who were competing in recitations, that being another branch upon which the scholarship was awarded.

65. X Q. State the particular circumstances under which you acquired your knowledge of applied mechanics?

A. From familiarity with and examination of different kinds of machinery, and many different forms of mechanical devices, and to a small extent in the personal construction of such devices, among these being two inventions, for one of which I applied for a patent, but found I had been anticipated.

66. X Q. You do not answer the last question directly; please do so.

A. I do not know that I can answer it any more directly, unless I were to give a list of the places where such familiarity was gained and examination had, which, from the number, it would be impossible for one to do. If you wish the motive which prompted such study, it was owing to the fact that it had been my intention before I left college to pursue that branch of the law which is connected with patents and patented devices, and I therefore prepared myself as far as I could for that specialty.

355 67. X Q. Please tell the court, without any circumlocution, the extent of any practical experience you have had in mechanics.

A. I cannot do so, any better than I have already done.

68. X Q. Point out in this cross-examination, by quoting the same, any statement of yours, giving the extent of your practical experience with mechanics?

A. My entire answers to cross-questions 65 and 66.

69. X Q. How often have you served as mechanical experts in United States courts?

A. I should think in the neighborhood of some ten times. I have not commenced to do so until within a somewhat recent period.

70. X Q. How can you say, as you do in answer to Q. 5, that perforations were "purposely" omitted in the claim of the original Gardner patent?

A. I do not say that they were purposely omitted, but that they seemed to have been purposely omitted, and my reason for so saying was that, as the drawings show, and the body of the specification both speaks of such perforations, the claim contains no allusion to them. A further reason is, that the body of the specification seems, by its language, to treat them as a minor feature, and one which is not at all essential to the invention claimed.

71. X Q. Would not one be equally justified in saying that the perforations were inadvertantly omitted?

A. I do not think so, for the reason that, as I understand it, the claim of a patent is intended to cover those features of a device which the inventor claims to be his own invention, and, as a rule, greater care is taken with this part of the specification than any other. I cannot conceive that perforations can have been meant to be claimed in view of the state of the art at the time that patent was drawn.

72. X Q. Please tell the court what is the ordinary meaning of the word perforation.

356 A. I should define the noun as "the result of a piercing through."

73. X Q. Have you ever heard of Webster's definition of that word?

A. I do not remember.

74. X Q. Have you ever read Worcester's definition of that word?

A. I do not remember, and it is not a word for whose ordinary meaning I should be apt to consult a dictionary.

75. X Q. Why not?

A. For the reason that my acquaintance with Latin, and consequently the derivation of the word, would render it unnecessary, even if my knowledge of its ordinary meaning were not so definite as not to require a recourse to a dictionary.

76. X Q. Where is your authority for saying that to perforate is to pierce?

A. None other than the English translation of the Latin words from which it is derived; and I may add that since the beginning of this cross-examination I have consulted Worcester's dictionary, and that is the first meaning which it gives for the verb "to perforate." The noun is there defined as "the act of piercing a hole."

77. X Q. Look at the Defendants' Exhibit Baillie Chair, and point out the results of any piercing thereon.

A. I should call all the holes in the back of that chair the results of piercing. In the way in which that chair back was probably made, a hole was bored or made, and a jig saw inserted in that hole, and the outline of each perforation followed by the jig saw.

78. X Q. You swear to the first part of your last answer, do you, seriously?

A. I am swearing to all of my testimony, and none of it is a joke.

79. X Q. But I notice that, in answer to the 77th question, you are very careful to say that you should call the space in the Baillie
357 chair holes. Now, will you please inform the court of any reliable book stating that those spaces in the Baillie chair are holes, in the ordinary meaning of the word "hole."

A. I know of no book whatever which alludes to the Baillie chair.

80. X Q. The last question was intended to cover the case of any article with such spaces as appear on this Baillie chair. With this understanding please answer the last question.

A. I cannot answer it any better than by giving a definition of the word "hole." Such a definition in Worcester's dictionary, to which I have before referred, is, "a cavity or perforation; a hollow place," and the back of the Baillie chair, or any other chair made like it, exhibits such perforations, as I understand it.

81. X Q. This dictionary of Worcester you have been referring to is a small book entitled Worcester's Academic Dictionary, is it not?

A. It is an octavo volume, of which the title page reads, "A pronouncing, explanatory, and synonymous dictionary of the English language."

82. X Q. Quote the title on the back of the book.

A. "Worcester's academic dictionary."

83. X Q. What is the number of pages contained in the work?

A. Five hundred and seventy-six.

84. X Q. As you swear you are a mechanical expert, and as an expert is an aid to the court, please tell the court, as such expert, the terms of art which would denominate the different parts which go to make up the chair back on Exhibit Baillie Chair; that is, if you are able so to do.

A. I should call them——

(Complainant's counsel wishes the witness to understand that what is wanted is the terms of art; that is, the art with which this chair is connected, and not the witness's individual opinion of the matter.)

358 A. I should call them the frame and panel.

85. X Q. Is that the best answer you can give?

A. It is.

86. X Q. In what department of the useful arts would the manufacture of such chair backs as are on Exhibit Baillie Chair belong?

A. That of a cabinet-maker.

87. X Q. Are you skilled in the art of cabinet-making, theoretical or practical?

A. I have an acquaintance both theoretical and practical—the latter to a limited extent—with the art of cabinet-making; I am not skilled in the art.

88. X Q. Does your acquaintance with cabinet-making enable you to tell for the information of the court the technical name of the different portions of the chair back on the Baillie chair and the peculiar configuration of such parts? Answer yes or no.

A. I think it does.

89. X Q. Then do so, if you please.

A. The frame of the back is carved in a conventional pattern of flowers and scrolls. The panel is what is called scroll work, to which, afterwards, a cutting tool has been applied to remove the sharp edges which are exhibited on the back of the panel, and to give it an appearance of being carved.

90. X Q. What is the technical name in the cabinet-making art, if you know, for the spaces between the scrolls or carving on the Baillie chair back?

A. I do not know.

91. X Q. Is not the panel on the Baillie chair carved work, in fact?

A. Its interior surface, or that which is turned toward the person sitting in the chair, is.

92. X Q. What is the difference between the character of the carving upon the frame and that on the panel of the Baillie chair?

A. I do not quite understand the question.

93. X Q. I mean is there any difference except the depth of cut?

359 A. There is no other that I see except that there is less elaboration bestowed upon the panel.

94. X Q. State your acquaintance with cabinet making.

A. I have been in a number of cabinet makers' work-rooms, have inquired of them their methods, and have, as I have said before, to a slight extent, practiced it myself.

95. X Q. Do you mean to tell the court that the Baillie chair back, minus the brace-arms at the bottom, could be practicably used as a chair seat?

A. With slight modifications it could.

96. X Q. Please tell us how it would be fastened to a chair seat by nails, as described in the Gardner patent.

A. I do not find in the Gardner original patent, or in either of the reissues, any statement that the seat may be so fastened, but there is no doubt that it might; and neither is there any doubt that the Baillie chair back, when modified to form a seat, might be so fastened. The nails would be placed around the edge of the modified back and would pass into the frame of the chair seat.

Redirect:

97. Re D. Q. Refer to your direct testimony and questions 43 and 44, wherein wooden settees or long seats as on the elevated railroad are referred to, and state if the yellow chair now shown you has the seat of the form referred to in those questions.

A. It has.

(The said chair is offered in evidence by defendants' counsel, and marked "Defendants' Exhibit Gardner Yellow Chair, J. T. L., Special Examiner, June 6th, 1881.")

98. Re D. Q. Would the panel from the Baillie chair back, if removed and substituted in the place of the seat in the Exhibit Yellow Chair, in your opinion, constitute a chair seat applied to a chair-seat frame,
360 and having the other elements as set forth in the two claims of the Gardner second reissue No. 9094, sued upon?

A. It would, for the reason that it would form a chair seat made of laminæ of wood, with grains crossing, glued together, concave on the upper surface, convex on the lower surface, and having perforations.

99. Re D. Q. Does this Exhibit Gardner Yellow Chair bear the stamp on its under side of being made under the patent of May 21, 1872, and does this exhibit show any dishing form of a seat, having a curvature at every point?

(Objected to as irrelevant and immaterial.)

A. It does bear such a stamp, and the curvature of the seat bottom of the exhibit referred to is not what is known as a dishing curvature, there being no curvature in the line drawn between the two sides of the chair, but only in that drawn from the back to the front of the seat.

Recross:

100. Re X Q. In applying the Baillie chair back to the frame of a cane-seat chair, would you or would you not remove the frame surrounding the panel of said Baillie chair back?

A. I would remove all of the frame, except so much as would give sufficient strength to the panel to bear a superimposed weight.

Redirect:

101. Re D. Q. You know, as a matter of fact, that the seat frames of chairs vary with the innumerable styles which are made, and with such knowledge would it or not require all or part of the frame surrounding the panel of the Baillie chair back in applying the panel as a seat bottom according to the style of chair to which it was applied?

(Objected to as very leading.)

A. I do know the fact mentioned in the first part of the question,
361 and as a matter of course the back of the Baillie chair would have to be adapted to the different styles of chair frames, such adaptations requiring a removal of a greater or less portion of the frame of the panel, according to the extent of the support given by the chair frame to the edge of the panel so made into a seat. A chair frame might be made, and a cane-seated chair is generally made, so as to make it possible to apply the Baillie chair back to the seat, and not require any portion of the

frame to be left surrounding the panel, the edges of the panel being supported by the frame of the chair sufficiently to prevent rupture.

J. E. HINDON HYDE.

Sworn to before me.
JOSIAH T. LOVEJOY,
Special Examiner, &c.

Adjourned to June 21, 1881, by consent of both parties.

NEW YORK, *June* 21, 1881.

Met pursuant to adjournment.
Present: Counsel as before.

OLIVER L. GARDNER, a witness on behalf of the defendant, being duly sworn, deposes and says as, follows:

I am one of the complainants in this cause, and have carefully examined the two exhibit chairs, marked in this case, respectively, "Defendants' Exhibit Gardner Yellow Chair," and "Defendants' Exhibit Gardner Brown Chair," and I am familiar with the construction of said chairs. These chairs, consisting of the frame work, and the seats and backs thereto attached, were sold by the firm of Gardner & Co., of which firm I am a member. The frames of each of these exhibits were not made by the said firm, but the seats and backs thereto attached were made by said firm, and secured to said frame work, and the said firm have sold, up to
362 this date, chairs to the number of forty-four, with seats and backs of the identical form and construction attached thereto as are attached to said Defendants' Exhibit Gardner Brown Chair; and the said firm have also sold, up to this date, chairs to the number of nine hundred and eighty-one, with seats and backs of the identical form and construction attached thereto as are attached to said Defendants' Exhibit Gardner Yellow Chair.

The members of the firm of Gardner & Co. are the complainants in this cause.

The said Exhibit Gardner Brown Chair has a seat and back in separate pieces, and the seat and back are each thus stamped:

I am familiar with the original patent for chair seats granted to George Gardner May 21, 1872, No. 127045, and this suit is brought upon a reissue of said original patent, which reissue is numbered 9094. The words stamped upon the back and seat of said Exhibit Brown Chair refer to this original patent.

The Exhibit Gardner Yellow Chair has a continuous piece forming the

back and seat, and upon the seat portion is found the same stamp above set forth.

My firm has sold large numbers of chair seats, and a few backs as are attached to said Exhibit Gardner Brown Chair thus stamped, and also
363 a considerable number of combined seat and back like on said Exhibit Gardner Yellow Chair.

O. L. GARDNER.

Subscribed and sworn to before me this 21st day of June, 1881.

W. F. HAPGOOD,
Notary Public (102), *New York County.*

The chair marked in this cause "Defendant's Exhibit Gardner Brown Chair," is offered in evidence by the defendant's counsel and so marked.

J. T. L.,
Special Examiner.

JUNE 21, 1881.

364 DEFENDANTS' EXHIBIT. "DEF'TS' EXHIBIT OPINION."—J. T. L., *Special Examiner, May 5*, 1881.

United States circuit court for the southern district of New York.

WILLIAM GARDNER AND OTHERS
against
MARTIN HERZ AND JOHN K. MAYO.

BLATCHFORD, J.:

This is a motion for a preliminary injunction, founded on reissued letters patent granted to George Gardner, William Gardner, and Jane E. Gardner, July 4, 1876, for an "Improvement in chair seats," the original patent having been granted to George Gardner and Gardner & Gardner, May 21, 1872, on the invention of George Gardner. The specification of the reissue states that "The invention relates to bottoms for seats, and consists in constructing the said seats of two or more veneers of wood with the grain crossing each other, the said veneers of wood, being glued together by an adhesive substance;" that "veneers, when thus arranged, that is to say, with the grains crossing each other, or diversified, will make a seat which, for durability and economy, will be found to be a very useful improvement;" that the seat may be made "either solid or perforated;" that "the perforated seats are made by boring a round hole, of any design desired;" that "the perforated seats are desirable, as they are ventilated and ornamental;" that "the veneers with the grains crossed or diversified and glued together become homogeneous, thus making a solid piece of wood," from which the bottom of the seats is made, "which,
365 when perforated and varnished, is ready for the market;" that "veneers, when thus arranged, that is to say, with the grain running crosswise or in divers directions, will make a bottom for a seat, which, for economy and durability, will be found to be a very useful improvement;" and that "the bottoms thus made may be left solid or perforated after some design agreeable to the fancy of the one having them made." The specification also states that a slight concave configuration may be

given to the seat to add to the comfort of the party using it; and that the bottom thus made is secured to a frame, which surrounds it, and through the latter is secured to the frame of the seat. The claims are six in number: 1. As a new article of manufacture, a bottom for a seat, constructed of two or more veneers or thin layers of wood, with the grain of the one layer crossing that of the other, and the whole secured together with an adhesive substance substantially as set forth; 2. As a new article of manufacture, a bottom for a seat frame, constructed of two or more veneers or thin layers of wood, with the grain of the one layer crossing that of the other; said layers being secured together by an adhesive substance, and having perforations formed therein for the purpose of ventilation or ornamentation substantially as set forth; 3. The combination of a seat bottom, constructed of two or more veneers or thin layers of wood, with the grain of the one layer crossing that of the other, and the whole secured together by an adhesive substance with the frame of the seat substantially as set forth; 4. The combination of a seat bottom, constructed of two or more veneers or thin layers of wood, the grain of the one layer crossing that of the other, and the whole secured together by an adhesive substance, and provided with perforations for the purpose of ventilation or ornamentation, with the frame a seat substantially as set forth; 5. As a new article of manufacture, a wooden bottom for seats, provided
366 with perforations for the purpose of ventilation or ornamentation; 6. As a new article of manufacture, a seat bottom constructed of two or more veneers or thin layers of wood, the grain of the one layer crossing that of the other, and secured together by an adhesive substance, said bottom thus formed having a curved or concave configuration on its upper side substantially as set forth.

The defendants make seat bottoms constructed of two or more veneers or thin layers of wood, with the grain of the one layer crossing that of the other, and the whole secured together with an adhesive substance; and there are slots or slits cut through the seat, as long as the length of the seat bottom from front to rear, leaving longitudinal holes of that length, and thus forming ribs or slats, the effect of which is to make the seat bottom yielding and elastic.

A patent was granted to the defendant (Mayo) December 26th, 1865, for "improved material for roofing, tubing, tanks, wainscotting, boats, and other structures." The specification of the patent states that the invention is an "improvement in the manufacture of material for structures generally." The specification says: "The scale used in the ensuing description consists of a thin layer of wood cut from a board or log and forming a veneer. My invention consists in cementing together a number of these scales or veneers, with the grain of the successive pieces running crosswise or diversely. A number of these scale boards, their surfaces having been previously treated with cement or analogous materials, are so laid together as to cross the grain of the respective pieces, so as to form a firm material for the construction of houses, boats, ships, tanks, floors, pipes, drains, sewers, packing cases, boxes, barrels, sidewalks, cans, pails, tubs, firkins, measures, cheese-boxes, trunks, valises, dry-docks, canal locks, mill and factory flumes, masts, spars, outside covering, and inside finish of houses, stores, shops, depots, and warehouses, fences, covering of piles, railroad cars, railroad and suspension bridges, rail-

367 road tracks, and sleepers, wagons, carriages, and carts, bedsteads, sacking, mattresses, and covering of beds, sofa, and sofa bedsteads, divans, lounges, chairs, and settees. In house architecture, the weather boarding and inside finish of the house may consist of this material, and in vessels of every kind it may be made the covering or lining of the ribs or skeleton, or, in some instances, may form the body of the article, as, for instance, in pipes in which the layers are united by an impervious cement, and so applied to each other that the grain of one will be lengthwise of the pipe, if another will be at the right angles of the former, and, if others are added, may be spirally around it. By the well-known processes of wet and dry heating, such a pliability may be given to the layers as to permit them to readily assume various figures, or be laid upon irregular objects, with the grain of the respective pieces running diversely, so as to prevent splitting. I cannot pretend to anticipate all the various uses to which this scale board may be applied, but suffice it to say, that by the means employed, I am enabled to make a very strong and light structure, of whatever shape it may be, or for whatever purpose it may be designed. It is capable of being made an effective and elegant substitute for the usual covering of the walls of rooms. For flooring it is also available, especially in cases where it is an object to make compartments air-tight, as in ice-houses, fruit chambers, and other rooms which it is desired to isolate for any purpose." The claim of the patent is: "The application of scale boards or veneers in layers, the direction of whose grain is crossed or diversified, and which are connected together, forming a material for the construction, lining, or covering of land and marine structures." This patent was reissued August 18, 1868, in eight divisions, or eight separate amended specifications, to John K. Mayo, Andre Cushing, and G. B. Cushing. Division E is a reissue for an "improvement in house decorations, furni-

368 ture, fittings and the like." The specification says: "The invention consists in constructing various house decorations, furnishings and fittings, of a plurality of scale boards or thin sheets of veneers of wood cemented or otherwise, firmly connected together, with the several scales or thicknesses so placed that the joints (ends or edges) shall be broken by each alternate layer, and the grain of the wood crossed or diversified, so that they will afford to each other mutual strength, support, and protection against checking, splitting, swelling, or shrinking. * * * In the chair Fig. 2, the bottom B may be formed of a flexible material, made up by the union of two or more thin layers of wood, having the grain crossed or diversified in direction, and united by suitable cement. "Various other articles of house decoration, fitting and furnishing, are specified, to the construction of which the invention is stated to be applicable." The claim is: "The employment or use of the compound scale board hereinbefore described, in the formation of the specified or analogous structures or articles of house decoration, fitting, and furnishing."

What is claimed in the first claim of the Gardner reissued patent is clearly described in the two Mayo patents, both of which were issued prior to the original Gardner patent. The original Gardner patent claimed "As a new article of manufacture, a chair seat constructed of veneers of wood with the grain running crosswise of each other, and glued together, all substantially as set forth, and for the purpose specified."

The specification states that "the seats may be left solid, or perforated

after some design agreeable to the fancy of the one having them made;" but there was no claim in respect of any perforations. On what ground the Patent Office granted the claim of the original Gardner patent, or the first claim of the reissued Gardner patent, in view of the original and reissued Mayo patents, it is impossible to conjecture.

369 The only conclusion can be that the Mayo patents were twice overlooked.

The next subject is the perforations. A reissued patent was granted to Isaac P. Tice as assignee of Austin S. Smith, the inventor, June 27th, 1865, for an "improved chair bottom or back," the original patent having been granted to said Smith, May 25th, 1858. The specification of the reissue describes the making of the bottoms or seats of chairs of perforated sheet metal and attaching the edges of the sheet of perforated metal to a supporting frame of wood or other stiff material of suitable form, by nails or tacks or other suitable fastenings. It states that the perforations may be of any suitable form, as circular or of a form resembling the reticulations produced by interlacing the strips of cane in a cane bottom; that the sheet metal is not only as good as cane in coolness and in the ventilation it affords to the clothing of persons, but is cheaper and more durable and so much smoother as to be less destructive to wearing apparel. A patent was granted to J. A. Cochran May 22d, 1866, for a "chair, sofa and car seat." The specification states that the "invention consists in the employment of India rubber or gutta percha enamelled in whole or perforated (open work) sheets for the seats and back of chairs, sofas, car seats, carriages and lining thereof, and for mattresses;" that "the material may be attached either by lacing, gluing, cementing, screwing or nailing. The drawing shows a chair seat with circular perforation in it. A chair seat of perforated sheet metal, or perforated enamelled India rubber or gutta percha, has every feature of ventilation and ornamentation, as resulting from the perforations, that the perforated chair seat of the Gardner patent has. The perforations in the Gardner seat are not described as serving any other end than ventilation and ornamentation. In view of the prior perforated seats there was no patentable novelty in perforating a wooden bottom. No claim is made that the defendants have in-

370 fringed the sixth claim of the Gardner reissue. As to the first five claims there is nothing new or patentable in them in view of the above references.

The motion is therefore denied.

A. J. Todd, for the plaintiff.
Frost & Coe, for the defendants.
(A copy.)

Clerk.

F. W. S.
[SEAL.] JOSEPH M. DEUEL.

Original filed May 9, 1879.

Circuit court of the United States, southern district of New York.

WILLIAM GARDNER, OLIVER L. GARDNER, AND Jane E. Gardner, *vs.* MARTIN HERZ AND JOHN K. MAYO. } In equity.

UNITED STATES OF AMERICA,
Southern District of New York, ss:

I, Josiah T. Lovejoy, a special examiner duly appointed by the circuit court of the United States for the southern district of New York, do hereby certify that the foregoing are the proofs for final hearing, taken before me in the above entitled cause on the part of the defendant under and pursuant to the 67th rule of the Supreme Court of the United States, as amended.

I do further certify that I am not of counsel nor attorney for either of the parties, nor in anywise interested in the event of said cause.

371 I further certify that Messrs. Gifford and Gifford appeared on the part of the complainant and James P. Foster appeared on the part of the defendants in taking said proofs.

JOSIAH T. LOVEJOY,
Special Examiner, &c.

372 DEFENDANTS' EXHIBIT GARDNER ORIGINAL PATENT.—J. T. L., *Special Examiner, April* 30, 1881.

[2—175.]

Department of the Interior, United States Patent Office, to all persons to whom these presents shall come, greeting:

This is to certify that the annexed is a true copy from the records of this office of the letters patent granted George Gardner and Gardner & Gardner May 21, 1872, No. 127045, for improvement in chair seats.

In testimony whereof I, E. M. Marble, Commissioner of Patents, have caused the seal of the Patent Office to be hereunto affixed this thirty-first day of March, in the year of our Lord one thousand eight hundred and eighty-one, and of the Independence of the United States the one hundred and fifth.

[L. S.] E. M. MARBLE,
Commissioner.

No. 127045.

The United States of America to all to whom these presents shall come:

Whereas George Gardner, of Glen Gardner, New Jersey, has presented to the Commissioner of Patents a petition praying for the grant of
373 letters patent for an alleged new and useful improvement in chair seats (he having assigned two-thirds of his right, title and interest in said improvement to Gardner & Gardner), a description of which invention is contained in the specification of which a copy is hereunto annexed and

made a part hereof, and has complied with the various requirements of law in such cases made and provided; and

Whereas, upon due examination made, said claimant is adjudged to be justly entitled to a patent under the law:

Now, therefore, these letters patent are to grant unto the said George Gardner and Gardner & Gardner, their heirs or assigns, for the term of seventeen years from the twenty-first day of May, one thousand eight hundred and seventy-two, the exclusive right to make, use, and vend the said invention throughout the United States and the Territories thereof.

In testimony whereof I have hereunto set my hand and caused the seal of the Patent Office to be affixed, at the city of Washington, this twenty-first day of May, in the year of our Lord one thousand eight hundred and seventy-two, and of the Independence of the United States of America the ninety-sixth.

[L. S.]

B. R. COWEN,
Acting Secretary of the Interior.

Countersigned:

M. D. LEGGETT,
Commissioner of Patents.

374 127045.

UNITED STATES PATENT OFFICE.

George Gardner, of Glen Gardner, New Jersey, assignor of two-thirds of his right to Gardner & Gardner. Improvement in chair seats. Specification forming part of letters patent No. 127045, dated May 21, 1872.

To all whom it may concern:

Be it known that I, George Gardner, of Glen Gardner, in the county of Hunterdon and State of New Jersey, have invented a new and useful chair seat; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to which my invention relates to construct the same, reference being had to the accompanying drawing and to the letters of reference marked thereon.

Figure 1 is a plan view partly in section, the section showing the middle layer of veneer. Fig. 2 is a longitudinal section taken on the line *x x* of Fig. 1.

Similar letters of reference refer to like parts in both of the figures.

This invention relates to chair seats; and it consists in constructing a seat out of veneers of wood with the grain running across each other and glued together.

I have shown in the drawing accompanying this specification three layers of veneers, they being represented by the letters A, B, C. The grain of veneer A crosses that of veneer B, as shown in section in Fig. 1, and the grain of veneer B crosses that of veneer C, as seen in Fig. 2. Veneers when thus arranged—that is to say, with the grain running in diverse directions—will make a seat which, for economy and durability, will be found to be a very useful improvement. The seats may be left solid or perforated after some design agreeable to the fancy of the one having them made. A slightly concave configuration may be given to the seat, as shown in Fig. 2.

Seats thus made do not cost as much as those that are made of cane, and are better by far in point of durability.

The veneers rest upon a shoulder, *f*, of a frame, F, which surrounds them.

Having thus described my invention, what I claim and desire to secure by letters patent is:

As a new article of manufacture, a chair seat constructed of veneers of wood with the grain running crosswise of each other and glued together, all substantially as set forth and for the purpose specified.

In testimony whereof I have signed my name to this specification of my invention, in the presence of two attesting witnesses, this 16th day of November, 1871.

GEO. GARDNER.

Witnesses:
JOHN TEATS.
ALBERT STEPHENS.

(Here follows diagram marked page 375.)

376 DEFENDANTS' EXHIBIT GARDNER FIRST REISSUE—J. T. L., *Special Examiner, April* 30, 1881.

[2—175.]

Department of the Interior, United States Patent Office, to all persons to whom these presents shall come, greeting:

This is to certify that the annexed is a true copy from the records of this office of the reissue letters patent granted George, William, and Jane E. Gardner July 4, 1876, No. 7203, for improvement in chair seats.

In witness whereof I, E. M. Marble, Commissioner of Patents, have caused the seal of the Patent Office to be hereunto affixed this thirty-first day of March, in the year of our Lord one thousand eight hundred and eighty-one, and of the Independence of the United States the one hundred and fifth.

[SEAL.] E. M. MARBLE,
Commissioner.

Reissue No. 7203.

The United States of America to all to whom these presents shall come:

Whereas George Gardner, of Brooklyn, New York, assignor by mesne assignments to himself, William Gardner, and Jane E. Gardner, has presented to the Commissioner of Patents a petition praying for the reissue of letters patent for an alleged new and useful improvement in
377 chair seats (for which letters patent were issued to George Gardner and Gardner & Gardner, dated May 21, 1872, which letters having been surrendered, the same have been canceled, and new letters ordered to issue to said assignees on an amended specification), a description of which invention is contained in the specification of which a copy is hereunto annexed and made a part hereof, and has complied with the various requirements of law in such cases made and provided; and

Whereas, upon due examination made, the said claimant is adjudged to be justly entitled to a patent under the law:

Now, therefore, these letters patent are to grant unto the said George, William, and Jane E. Gardner, their heirs or assigns, for the term of seventeen years from the 21st day of May, one thousand eight hundred and seventy-two, the exclusive right to make, use, and vend the said invention throughout the United States and the Territories thereof.

In testimony whereof I have hereunto set my hand and caused the seal of the Patent Office to be affixed, at the city of Washington, this fourth day of July, in the year of our Lord one thousand eight hundred and seventy-six, and of the Independence of the United States of America the one hundred and first.

[SEAL.] CHARLES T. GORHAM,
Acting Secretary of the Interior.

Countersigned:

R. H. DUELL,
Commissioner of Patents.

378 UNITED STATES PATENT OFFICE.

George Gardner, of Brooklyn, New York, assignor by mesne assignments to himself, William Gardner, and Jane E. Gardner. Improvement in chair seats. Specification forming part of letters patent No. 127045, dated May 21, 1872; reissue No. 7203, dated July 4, 1876; application filed April 8, 1876.

To all whom it may concern:

Be it known that I, George Gardner, of the city of Brooklyn, county of Kings, and State of New York, have invented a new and useful improvement in the bottoms of seats; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to which my invention relates to construct the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon.

Figure 1 is a plan view, partly in section, of my improved seat, the section showing the middle layer of veneer. Fig. 2 is a view of my improved seat for chairs, settees, &c., this figure showing a longitudinal section of the seat, taken on the line *x x* of Fig. 1.

Similar letters of reference refer to like parts in both of the figures.

This invention relates to bottoms for seats, and consists in constructing the said seats of two or more veneers of wood, with the grains crossing each other, the said veneers of wood being glued together by an adhesive substance.

I have shown in the drawing accompanying this specification three layers of veneer, applied to the construction of and forming a seat for chairs. These layers of veneer are represented by the letters A, B, and C. The grain of veneer A crosses that of veneer B, as shown in section in Fig. 1, and the grain of veneer B crosses that of veneer C, as seen in Fig 2. Veneers, when thus arranged—that is to say, with the grains crossing each other or diversified—will make a seat which, for durability and economy, will be found to be a very useful improvement.

I make the seat either solid or perforated, as shown in Fig. 1. A slight concave configuration may be given to the seat.

The perforated seats are made by boring a round hole of any design desired; and they may be bored either by hand or by machinery adapted for the purpose.

The perforated seats are desirable, as they are ventilated and ornamental.

I have especially shown and described my improved seat for chairs. The veneers of which this seat is constructed rest upon a shoulder, *f*, of a frame, F, which surrounds them, as shown in Fig. 2 of the drawing. The veneers, with the grains crossed or diversified and glued together, become homogeneous, thus making a solid piece of wood from which I make the bottom of the seat, which, when perforated and varnished, is ready for the market.

Veneers, when thus arranged—that is to say, with the grain running crosswise or in diverse directions—will make a bottom for a seat which, for economy and durability, will be found to be a very useful improvement. The bottoms thus made may be left solid or perforated after some design agreeable to the fancy of the one having them made. A slightly concave configuration may be given to the bottom, as shown in Fig. 2, which greatly adds to the comfort of the party using it. The bottom thus made is secured to a frame, F, which surrounds it, and through the latter is secured to the seat frame K.

Having thus described my invention, what I claim is—

1. As a new article of manufacture, a bottom for a seat constructed of two or more veneers or thin layers of wood, with the grain of the one layer crossing that of the other, and the whole secured together with an adhesive substance, substantially as set forth.

2. As a new article of manufacture, a bottom for a seat frame constructed of two or more veneers or thin layers of wood, with the grain of the one layer crossing that of the other, said layers being secured together by an adhesive substance, and having perforations formed therein for the purpose of ventilation or ornamentation, substantially as set forth.

3. The combination of a seat-bottom, constructed of two or more veneers or thin layers of wood, with the grain of the one layer crossing that of the other, and the whole secured together by an adhesive substance with the frame of the seat, substantially as set forth.

4. The combination of a seat bottom constructed of two or more veneers or thin layers of wood, the grain of the one layer crossing that of
379 the other, and the whole secured together by an adhesive substance, and provided with perforations for the purpose of ventilation or ornamentation, with the frame of a seat, substantially as set forth.

5. As a new article of manufacture, a wooden bottom for seats provided with perforations for the purpose of ventilation or ornamentation.

6. As a new article of manufacture, a seat bottom constructed of two or more veneers or thin layers of wood. the grain of the one layer crossing that of the other, and secured together by an adhesive substance, said bottom thus formed having a curved or concave configuration on its upper side, substatially as set forth.

In testimony whereof I have signed my name to this specification of my

invention in the presence of two attesting witnesses, this 6th day of March, 1876.

GEO. GARDNER.

Witnesses:
CHARLES G. COE.
LOUIS W. FROST.

(Here follows diagram marked page 380.)

381 DEFENDANTS' EXHIBIT GARDNER SECOND REISSUE.—J. T. L., *Special Examiner*, *April* 30, 1881.

[2—175.]

Department of the Interior, United States Patent Office, to all persons to whom these presents shall come, greeting:

This is to certify that the annexed is a true copy from the record of this office of the reissue letters patent granted Oliver L. Gardner, William Gardner, and Jane E. Gardner, February 24, 1880, No. 9094, for improvement in chair seats.

In testimony whereof I, E. M. Marble, Commissioner of Patents, have caused the seal of the Patent Office to be hereunto affixed this thirty-first day of March, in the year of our Lord one thousand eight hundred and eighty-one, and of the Independence of the United States the one hundred and fifth.

E. M. MARBLE, *Commissioner*.

Reissue No. 9094.

The United States of America to all to whom these presents shall come:

Whereas George Gardner, of Westfield, New Jersey, assignor by mesne assignments to Oliver L. Gardner, William Gardner, and Jane E. Gardner, has presented to the Commissioner of Patents a petition praying for the reissue of letters patent for an alleged new and useful improve-
382 ment in chair seats, for which letters patent were issued to George Gardner and Gardner & Gardner, dated May 21, 1872, the same surrendered and new letters issued to George Gardner, William Gardner, and Jane E. Gardner, dated July 4, 1876; which last letters having been surrendered, the same have been cancelled and new letters ordered to issue to said assignees on an amended specification, a description of which invention is contained in the specification of which a copy is hereunto annexed and made part hereof, and has complied with the various requirements of law in such cases made and provided; and

Whereas, upon due examination made, the said claimant is adjudged to be justly entitled to a patent under the law:

Now, therefore, these letters patent are to grant unto the said Oliver L. Gardner, William Gardner, and Jane E. Gardner, their heirs or assigns, for the term of seventeen years from the twenty-first day of May, one thousand eight hundred and seventy-two, the exclusive right to make, use,

and vend the said invention throughout the United States and the Territories thereof.

In testimony whereof I have hereunto set my hand and caused the seal of the Patent Office to be affixed, at the city of Washington, this twenty-fourth day of February, in the year of our Lord one thousand eight hundred and eighty, and of the Independence of the United States of America the one hundred and fourth.

[L. S.]

A. BELL,
Acting Secretary of the Interior.

Countersigned:

H. E. PAINE,
Commissioner of Patents.

383 UNITED STATES PATENT OFFICE.

George Gardner, of Westfield, New Jersey, assignor by mesne assignments to Oliver L. Gardner, William Gardner, and Jane E. Gardner. Chair seat. Specification forming part of reissued latters patent No. 9094, dated February 24, 1880. Original No. 127605, dated May 21, 1872; reissue No. 7203, dated July 4, 1876. Application for reissue filed October 31, 1879.

To all whom it may concern:

Be it known that I, George Gardner, now of Westfield, in the State of New Jersey, have invented an improvement in chair seats, of which the following is a specification:

The state of the art in relation to devices having a similarity to my invention may be set forth as follows: In letters patent No. 15552, granted August 19, 1856, a bedstead is described made of veneers glued together, with the grains crossing, and in such patent there is a statement that veneers crossing and glued together had been used for combining strength and lightness. In letters patent No. 19405, February 23, 1858, chairs and other articles of furniture are described as made of layers of wood or veneers crossing each other, glued together, and pressed to shape In letters patent No. 40509, granted November 3, 1863, boxes are described as made of veneers or layers of wood crossing each other and glued together. In letters patent No. 23225, granted March 15, 1859, a chair bottom is described as made of a piece of board softened by steam and pressed up to shape in molds. In letters patent No. 110096, December 13, 1870, a barrel is described of laminæ of wood with the grain crossing and glued together. Sheet metal perforated to form chair bottoms is set forth in A. S. Smith's patent, reissued June 27, 1865. Chair seats of enameled hard rubber and gutta-percha perforated are set forth in letters patent No. 54863, May 7, 1866. Letters patent No. 51735, granted December 25, 1865, to J. K. Mayo, sets forth numerous articles made of laminæ of wood; and in a subsequent reissue, dated August 18, 1868, mention is made of a chair seat, but the same was neither concave nor perforated.

My invention, as distinguished from the foregoing, relates to a new article of manufacture, consisting of a chair seat made of veneers of wood, with the grains of one veneer crossing the other and glued together, and having a concave or dishing form, and perforated.

From the foregoing it will be apparent that I do not lay any claim to the veneers crossing each other and glued together, as these have been used for various purposes, and even for furniture, and have become public property. Neither do I claim the pressing of a chair seat into a concave form by dies. Neither do I claim a perforated seat, as sheet metal has been employed; but it is cold to the person, and liable to break and to catch the clothing. Neither do I claim a single layer of such material as hard rubber or gutta-percha perforated. This is so expensive as not to be adapted to general use.

My chair seat is a new article possessing great strength and durability. It is very light and cheap. It forms an agreeable seat. It is not hot in summer nor cold in winter. The perforations give the wood a handsome appearance and afford the required ventilation, and the seat is adapted to be secured to any chair frame, as it is easily cut and fitted to the same, and the cost of these seats is less than those made of cane, and they are much more durable.

In the drawings, Figure 1 is a plan with the upper layer of veneer partially removed. Fig. 2 is a vertical section of the chair and seat.

I have shown three layers of veneers, A, B, C. The grain of the veneer A crosses that of the veneer B, and the grain of the veneer B crosses that of the veneer C, and these are cemented together by suitable adhesive substance, such as glue.

The seat is of a concave or dishing form, so as to be better adapted to the shape of the person, and the under side of the seat is convex.

The perforations through the seat are to be arranged to produce any design that may be agreeable to the fancy of the person making or using the chair. These perforations make the seat light, and also ventilate the same.

The edges of the seat rest upon and are secured to the chair frame; and in Fig. 2 the frame is rabbeted to form shoulders, *f*, upon which the edges of the seat rest.

I claim as my invention—

384 1. As a new article of manufacture, a chair seat formed of laminæ of wood with the grain crossing, glued together, and concave on the upper surface and convex on the lower surface, adapted to a chair frame, substantially as set forth.

2. A chair seat made of laminæ of wood glued together, with the grains in one layer crossing those of the next, concave on the upper surface, convex on the lower surface, and perforated, as a new article of manufacture, substantially as set forth.

Signed by me this 7th day of October, A. D. 1879.

GEO. GARDNER.

Witnesses:
GEO. T. PINCKNEY.
WILLIAM G. MOTT.

(Here follows diagram marked page 385.)

386 DEFENDANTS' EXHIBIT MAYO ORIGINAL PATENT.—J. T. L., *Special Examiner, May* 5, 1881.

[2—175.]

Department of the Interior, United States Patent Office, to all persons to whom these presents shall come, greeting:

This is to certify that the annexed is a true copy from the records of this office of the letters patent granted John K. Mayo, December 26, 1865, No. 51735, for improved material for roofing, tubing, tanks, wainscotting, boats, and other structures.

In testimony whereof I, E. M. Marble, Commissioner of Patents, have caused the seal of the Patent Office to be hereunto affixed this thirty-first day of March, in the year of our Lord one thousand eight hundred and eighty-one, and of the Independence of the United States the one hundred and fifth.

[L. S.] E. M. MARBLE, *Commissioner.*

No. 51735.

United States of America, to all to whom these letters patent shall come:

Whereas John K. Mayo, of Portland, Maine, has alleged that he has invented a new and useful improved material for roofing, tubing, tanks, wainscotting, boats, and other structures, which he states has not been known or used before his application; has made oath that he is a
387 subject of the Crown of Great Britain and Ireland, that he does verily believe that he is the original and first inventor or discoverer of the said invention, and that the same hath not, to the best of his knowledge and belief, been previously known or used; has paid into the Treasury of the United States the sum of thirty-five dollars, and presented a petition to the Commissioner of Patents signifying a desire of obtaining an exclusive property in the said invention, and praying that a patent may be granted for that purpose:

These are, therefore, to grant, according to law, to the said John K. Mayo, his heirs, administrators, or assigns, for the term of seventeen years from the twenty-sixth day of December, one thousand eight hundred and sixty-five, the full and exclusive right and liberty of making, constructing, using, and vending to others to be used, the said invention, a description whereof is given in the words of the said John K. Mayo in the schedule hereunto annexed, and is made part of these presents.

In testimony whereof I have caused these letters to be made patent, and the seal of the Patent Office has been hereunto affixed.

Given under my hand, at the city of Washington, this twenty-sixth day of December, in the year of our Lord one thousand eight hundred and sixty-five, and of the Independence of the United States of America the ninetieth.

[SEAL.] W. T. OTTO,
Acting Secretary of the Interior.

Countersigned and sealed with the seal of the Patent Office.

T. C. THEAKER,
Commissioner of Patents.

388 The schedule referred to in these letters patent and making part of the same:

To all whom it may concern:

Be it known that I, John K. Mayo of Portland, in the County of Cumberland and State of Maine, have invented a new and useful improvement in the manufacture of material for structures generally, and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to accompanying drawings which are made part of this specification and in which—

Figure 1 is a transverse section of a water pipe, constructed according to my invention, and

Figure 2 is a longitudinal section of the same.

Figure 3 is a side elevation and sectional view of a portion of clapboarding made upon my improved plan.

Figure 4 represents similar views of a section of roofing, illustrative of my invention.

Figure 5 represents similar views of a portion of the interior lining of a house or other analogous structure, embodying the same principle.

Figure 6 represents a barrel, to which articles my invention may also be advantageously applied.

The scale used in the ensuing description consists of a thin layer of wood, cut from a board or log and forming a veneer.

My invention consists in cementing together a number of these scales or veneers with the grain of the successive pieces running crosswise or diversely. A number of these scale boards, their surfaces having been previously treated with cement or analogous material, are so laid together as to cross the grain of the respective pieces so as to form a firm material for the construction of houses, boats, ships, tanks, floors, pipes, drains, sewers, packing-cases, boxes, barrels, sidewalks, cans, pails, tubs, firkins, measures, cheese-boxes, trunks, valises, dry docks, canal locks, mill and factory flumes, masts, spars, outside covering, and inside finish of houses,
389 stores, shops, depots, and warehouses, fences, covering of piles, railroad cars, railroad and suspension bridges, railroad tracks and sleepers, wagons, carriages and carts, bedsteads, sacking, mattresses and covering of beds, sofas, and sofa bedsteads, divans, lounges, chairs and settees.

In house architecture, the weather-boarding and inside finish of the house may consist of this material, and in vessels of every kind it may be made the covering or lining of the ribs or skeleton, or in some instances, may form the body of the article, as for instance in pipes in which the layers are united by an impervious cement and so applied to each other that the grain of one will be lengthwise of the pipe, of another will be at right angles to the former, and if others are added, may be spirally around it.

By the well known processes of wet and dry heating, such a pliability may be given to the layers as to permit them to readily assume various figures or be laid upon irregular objects with the grain of the respective pieces running diversely, so as to prevent splitting.

I cannot pretend to anticipate all the various uses to which this scale board may be applied, but suffice it to say, that by the means employed, I am enabled to make a very strong and light structure, of whatever shape

it may be, or for whatever purpose it may be designed. It is capable of being made an effective and elegant substitute for the usual covering of the walls of rooms.

For flooring it is also available, and especially in cases where it is an object to make apartments air tight, as in ice houses, fruit chambers and other rooms which it is desired to isolate for any purpose.

It is believed that the drawings in connection with the above statement will suffice to explain my invention without dwelling further upon it.

Having thus described my invention, the following is what I claim as new, and desire to secure by letters patent.

390 I claim the application of scale boards or veneers in layers, the direction of whose grain is crossed or diversified, and which are connected together, forming a material for the construction, lining or covering of land and marine structures.

JOHN K. MAYO.

Witneses:
C. D. SMITH.
JAS. L. ERVIN.

Ex'd: H. M. H., E. A. M.
Ex'd: J. A. W., M. McK.

(Here follows diagram marked page 390.)

391 DEFENDANTS' EXHIBIT MAYO REISSUE PATENT.—J. T. L., *Special Examiner, May 5*, 1881.

[2—175.]

Department of the Interior, United States Patent Office, to all persons to whom these presents shall come, greeting:

This is to certify that the annexed is a true copy from the records of this office of the reissue letters patent granted Mayo, and Andre and G. B. Cushing August 18th, 1868, No. 3089, for improvement in house decorations, furniture, fittings and the like.

In testimony whereof I, E. M. Marble, Commissioner of Patents, have caused the seal of the Patent Office to be hereunto affixed this second day of April, in the year of our Lord one thousand eight hundred an eighty-one, and of the Independence of the United States the one hundred and fifth.

[SEAL.] E. M. MARBLE, *Commissioner.*

Reissue No. 3089.

The United States of America to all to whom these letters patent shall come:

Whereas John K. Mayo, of New York New York, for himself and Andre Cushing, and G. B. Cushing, of St. John, New Brunswick, assignees of John K. Mayo, have alleged that said John K. Mayo invented

391½ a new and useful improvement in house decorations, furniture, fittings and the like (for which letters patent were issued to him, dated December 26, 1865, which letters having been surrendered by him and said assignees, the same have been canceled, and new letters ordered to issue to them on eight separate amended specifications), and had made oath that he was a subject of the Crown of Great Britain and Ireland; that he did verily believe he was the original and first inventor or discoverer of the said improvement, and that the same hath not, to his knowledge and belief, been previously known or used; said assignees having paid into the Treasury of the United States the sum of thirty dollars, and presented a petition to the Commissioner of Patants, praying that a patent may be issued therefor:

These are, therefore, to grant to the said Mayo and Andre and G. B. Cushing, their executors, administrators, or assigns, for the term of seventeen years from the 26th day of December, one thousand eight hundred and sixty-five, the full and exclusive right and liberty of making, using, and vending to others to be used, the said improvement, a description whereof is given in the annexed schedule, and made a part of these presents.

In testimony whereof I have caused these letters to be made patent, and the seal of the Patent Office to be hereunto affixed.

Given under my hand, at the city of Washington, this eighteenth day of August, in the year of our Lord one thousand eight hundred and sixty-eight, and of the Independence of the United States of America the ninety-third.

[SEAL.] O. H. BROWNING,
Secretary of the Interior.

Countersigned and sealed with the seal of the Patent Office.

ELISHA FOOTE,
Commissioner of Patents.

392 UNITED STATES PATENT OFFICE.

John K. Mayo, of New York, N. Y., for himself and A. and G. B. Cushing, of St. John, New Brunswick, assignees of John K. Mayo. Improvement in house decorations, furniture, fittings, and the like. Specification forming part of letters patent No. 51735, dated December 26, 1865; reissue No. 3089, dated August 18, 1868.

Division E.

To all whom it may concern:

Be it known that I, John K. Mayo, formerly of Portland, Maine, but now of the city, county, and State of New York, have invented certain improvements in the construction of house decorations, furnishings, and fittings; and the following is declared to be descriptive of the said invention, reference being had to the accompanying drawings:

The invention consists in constructing various house decorations, furnishings, and fittings of a plurality of scale boards or thin sheets or veneers of wood, cemented or otherwise firmly connected together, with the several scales or thicknesses so placed that the joints (ends or edges) shall be

broken by each alternate layer, and the grain of the wood crossed or diversified, so that they will afford to each other mutual strength, support, and protection against checking, splitting, swelling, or shrinking.

In the drawings, Figure 1 is a sectional perspective view of a chess-table illustrating the invention. Fig. 2 is a vertical section of a chair. Fig. 3 is a perspective sectional view of a window-shade, partially rolled up.

In all the figures it is designed to represent the grain of the respective layers of wood, or some of them, running in diverse directions from others, for the objects already explained.

In constructing table-tops or other furniture or articles, any ornamental form or figure may be imparted by placing the layers of wood (previously coated with cement) into or upon a former, and there subjecting them to the requisite pressure to unite the layers of wood and produce the desired shape.

In the table-top A, a^1 a^2 a^3 represent different layers or laminæ of wood, and a a a squares of wood of various colors to form a chess-board.

In the chair, Fig. 2, the bottom B may be formed of a flexible material, made up by the union of two or more thin layers of wood, having the grain crossed or diversified in direction, and united by suitable cement.

The chair back C may be made of any desired form; and by forming it of a number of scale boards suitably united, with the grain diversified in direction, a back is produced possessing great strength, and practically homogeneous and jointless from end to end.

The window-shade may be made of two or more layers of laminæ of wood as thin as paper, the grain in one layer running in a diverse direction from the other layer.

Floor-cloth made of this material embraces the advantage of strength and economy over that produced by coating textile material with paint. It is not liable to break, and is rendered, by a single coat of varnish or paint, a thoroughly efficient, cheap, and durable floor-covering, possessing sufficient flexibility, and produced at a small fraction of the cost of floor-cloth as usually made.

The invention is also applicable to the construction of chairs, tables, desks, chess-boards, bedsteads, or parts thereof, cornices, brackets, book shelves and cases, panels, wardrobes, screens, wall-coverings, Venetian blinds, picture and looking-glass frames, window shades or curtains, carpets, carpet coverings or linings, mats, floor-cloths, sacking bottoms, couches, cots, and other articles of similar nature too numerous to mention.

By adopting the well-known process of wet and dry heating in course of manufacture, the several scales of wood may be brought to such a state of pliability as to assume any desired form by compression in a matrix or upon formers; and by using different degrees of thickness, in connection with elements of different kinds, the character of the article made may be either rigid or flexible.

Dyes of various hues may be used as coloring for the sheets of wood, as fancy may incline.

The following is claimed as new in the invention of John K. Mayo:

The employment or use of the compound scale board hereinbefore de-

scribed in the formation of the specified or analogous structures or articles of house decoration, fitting, and furnishing.

JOHN K. MAYO.

Witnesses:
EDWARD WILLARD.
S. W. FROST.

(Here follows diagram marked page 392.)

393 DEFENDANTS' EXHIBIT BELTER PATENT OF 1856.—J. D., *Notary Public.*

[2—175.]

Department of the Interior, United States Patent office to all persons to whom these presents shall come, greeting:

This is to certify that the annexed is a true copy from the records of this office of the letters patent granted John H. Belter August 19, 1856. No. 15552. For bedsteads.

In testimony whereof I, E. M. Marble, Commissioner of Patents, have caused the seal of the Patent Office to be hereunto affixed this thirty-first day of March, in the year of our Lord one thousand eight hundred and eighty-one, and of the Independence of the United States the one hundred and fifth.

[SEAL.] E. M. MARBLE,
Commissioner.

No. 15552.

United States of America to all to whom these letters patent shall come:

Whereas John H. Belter, of New York, N. Y., has alleged that he has invented a new and useful bedsteads, which he states have not been known or used before his application; has made oath that he is a citizen of the United States; that he does verily believe that he is the original and first inventor or discoverer of the said bedsteads, and that the same
394 have not, to the best of his knowledge and belief, been previously known or used; has paid into the Treasury of the United States the sum of thirty dollars, and presented a petition to the Commissioner of Patents signifying a desire of obtaining an exclusive property in the said bedsteads, and praying that a patent may be granted for that purpose:

These are, therefore, to grant, according to law, to the said John H. Belter, his heirs, administrators, or assigns, for the term of fourteen years from the nineteenth day of August, one thousand eight hundred and fifty-six, the full and exclusive right and liberty of making, constructing, using, and vending to others to be used, the said bedsteads, a description whereof is given in the words of the said Belter in the schedule hereunto annexed, and is made part of these presents.

In testimony whereof I have caused these letters to be made patent, and the seal of the Patent Office has been hereunto affixed.

Given under my hand, at the city of Washington, this nineteenth day

of August, in the year of our Lord one thousand eight hundred and fifty-six, and of the Independence of the United States of America the eighty-first.

[SEAL.] ROBERT McCLELLAND,
Secretary of the Interior.

Countersigned and sealed with the seal of the Patent Office.

S. T. SHUGERT,
Acting Commissioner of Patents.

395 The schedule referred to in these letters patent and making part of the same:

To all whom it may concern:

Be it known that I, John Henry Belter, of the city and county of New York, in the State of New York, have invented a new and improved bedstead, and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the annexed drawings and to the letters of reference marked thereon:

Fig. 1 is a perspective view of the bedstead complete.

Fig. 2 is a horizontal section of the bedstead proper, A A, with the inside frame removed. It is made in only two parts, the line of their juncture being indicated by the blue line.

Fig. 3 is a plan view of the internal frame C, showing the rectangular notches B′ B′, which holds the bedstead together.

Fig. 4 is a vertical section taken longitudinally through the center of the bedstead, the inside frame C being removed, and the parts A A slightly separated, while an additional side rail, H H, which may be employed or not at pleasure, is represented elevated slightly above its proper position.

Fig. 5 is a plan view of the "cauls" used in shaping the parts.

Fig. 6 shows a few pieces of veneer glued together in the same manner as are the veneers in any bedstead.

Fig. 7 shows an edge view of an ordinary veneered bedstead, which, when glued, has been compressed unequally between imperfect "cauls."

Fig. 8 shows an edge view of the material I employ, which, when glued, has been compressed unequally between the same "cauls" as Fig. 7, showing that the space between the veneers will, in Fig. 8, be divided between the different layers and all filled with glue.

396 Like letters refer to the same parts in all the drawings.

Bedsteads, as ordinarily constructed, are necessarily composed of several parts secured together in a manner which requires considerable time, and in some cases peculiar wrenches or other instruments to effect either their junction or their separation. This is an evil more particularly apparent when it becomes necessary to separate the parts very hurriedly, in case of fire. One object of my invention is to surmount this difficulty and allow the parts to be immediately separated without tools.

Again, the ordinary bedstead contains deep and intricate recesses about the joints and fastenings which are difficult of access and notorious as hiding places for bugs. A second object of my invention is to avoid the necessity for these recesses.

Again, the thickness of the posts and other parts in ordinary bedsteads

intrudes upon what would otherwise be valuable space either on their interior or exterior faces. A third object of my invention is to avoid this evil.

And again, an ordinary veneered bedstead is liable to contain empty spaces between the veneer and the solid wood, in which spaces young bugs may be concealed. These spaces result from inequalities in the "cauls," as the large moulds are termed, which press the veneer upon the solid wood. Whenever a depression exists in the "cauls," the solid wood having little or no ability to yield, does not adapt itself thereto, and an empty space, M, is the result, as shown in Fig. 7. A fourth object of my invention is to avoid this evil.

My bedstead is composed entirely of wood and glue. I will describe minutely its construction:

The bedstead proper, A A, is about $\frac{3}{8}$ of an inch in thickness throughout, with rounded corners, and without posts or joints, in the ordinary sense of the term. It is represented as consisting of only two pieces, but
397 can be made in four if desired. It is, by its peculiar construction, immensely strong and durable.

Its whole thickness is composed of thin layers glued together. Each alternate layer is placed with the grain standing perpendicularly, while the others are placed with the grain running in a horizontal direction, as shown on a larger scale in Fig. 6. The whole are glued together at one time under pressure, as further explained below. The veneers which are presented to the eye on both the internal and external surfaces of A A should be of rosewood or other choice wood, while those concealed beneath the surface may as well be of oak or of black walnut.

There is no limit to the size in which the parts may be formed without joints by these means, and I prefer to make the whole in two parts, as represented. I provide castors, E E, for each part, so that the weight of each is supported without depending on the other or others, and on urging the parts together the short dowels F F on the edge of one part fitting into corresponding cavities in the edge of the other part, ensure a perfect harmony in their positions. The internal frame C, Fig. 3, is adapted to support the mattresses, but in addition to this it serves the important purpose of retaining the parts A A in their proper relative positions, for which latter end the plain shallow notches B′ B′ are formed in its edge.

On the inner surface of each part I provide projections, B B, which projections are widest at the bottom, and so arranged that they shall be tightly embraced in the notches B′ B′ when the internal frame C is dropped into its place. The parts A A, each supported independently on its own castors, are thus simply held together by means of the frame C, and are separated by any slight force when the latter is lifted out of its place. Additional projections, D D, are provided on the interior of A A, which serve as additional supports to C.

I prefer to finish the top of each side by attaching additional
398 pieces of wood, H H, by means of dowels. These pieces are not essential except as affording an agreeable finish.

The frame C may, for convenience, be made in several parts by providing additional projections, D, for their support. In such case the part containing the notches B′ B′ should be a simple board extending transversely across the bedstead, as represented by the blue lines in Fig 3.

The veneers from which the parts A A are formed may as well be a little thicker than ordinary, say about $\frac{1}{16}$ inch thick. The glue should be of the very best quality, pretty thin and hot. The sheets to form one surface being spread on the table, and liberally covered with glue, each successive layer should be treated in the same manner, taking care to lay the veneers in each layer so that the grain shall run at right angles to the grain in the last. Any odd number of layers may be used, but I prefer nine, and the whole mass of sheets should then be immediately pressed between hot "cauls," I J, which bend it to the form required. When the "cauls" I J are firmly pressed to their places, the superfluous glue will exude at the edges of the sheets, and after remaining seven hours or more under pressure the "cauls" may be carefully separated, but the compound sheet must be allowed a few days to become thoroughly dry. After this period the work may be finished by ordinary tools, glueing on more wood to form a sufficient thickness for the carved portion when necessary.

The faces of "cauls" are quite liable to be more or less distorted and indented at various points, particularly if they have been in use. When a single veneer with no very extraordinary surplus of glue is pressed by such a caul upon solid wood a cavity is frequently left beneath it, as somewhat exaggerated in Fig. 7, where K K represents the veneer, L L the solid wood, and M the empty cavity. But my cauls, if quite imperfect in surface, do not leave such spaces in the material of which my bedstead
399 is composed, as the flexibility of the veneers and the surplus of glue between the layers induces a greater or less yielding of all the layers, as represented in Fig. 8, leaving no space so large as to be unfilled with glue.

It is, in many cases, very convenient to make the parts A A in separate pieces and glue them together with a tapering scarf, as represented at N N. The strength of such a scarf is very nearly or quite equal to the other portions, and I do not term such a scarf a "joint" in the ordinary acceptation of the term. In general, when I make the bedstead proper in only two parts, I prefer to manufacture each of the parts in three pieces and then glue them together as described.

I am aware that veneers glued together with the grain of each layer standing at right angles to the next have been long in use for the purpose of combining strength and lightness. This I do not claim, nor do I claim the above described method of producing it; but what I claim as my invention and desire to secure by letters patent is a bedstead constructed of thin parts, A A, supported independently without posts or joints, when the parts are composed of veneers and arranged substantially as described and for the purposes set forth.

I also claim the wedge-shaped projections B B on the inside faces of each part, and the shallow notches B′ B′ on the edge of the internal frame C, when combined substantially as described and for the objects made plain.

J. H. BELTER.

Witnesses:

JNO. WARD, JR.

THOMAS D. STETSON.

Ex'd: J. A. W.

Ex'd: M. McK.

(Here follows diagram marked page 400.)

401 DEFENDANTS' EXHIBIT BELTER PATENT.—J. T. L., *Special Examiner, May 5, '81.*

[2—175.]

Department of the Interior, United States Patent Office, to all persons to whom these presents shall come, greeting:

This is to certify that the annexed is a true copy from the records of this office of the letters patent granted John H. Belter, February 23, 1858, No. 19405, for improvement in the method of manufacturing furniture.

In testimony whereof I, E. M. Marble, Commissioner of Patents, have caused the seal of the Patent Office to be hereunto affixed this thirty-first day of March, in the year of our Lord one thousand eight hundred and eighty-one, and of the Independence of the United States the one hundred and fifth.

[L. S.]

E. M. MARBLE,
Commissioner.

No. 19405.

United States of America to all to whom these letters patent shall come:

Whereas John H. Belter, of New York, N. Y., has alleged that he has invented a new and useful improvement in the method of manufacturing furniture, which he states has not been known or used
402 before his application; has made oath that he is a citizen of the United States; that he does verily believe that he is the original and first inventor or discoverer of the said improvement, and that the same hath not, to the best of his knowledge and belief, been previously known or used; has paid into the Treasury of the United States the sum of thirty dollars, and presented a petition to the Commissioner of Patents signifying a desire of obtaining an exclusive property in the said improvement, and praying that a patent may be granted for that purpose:

These are, therefore, to grant, according to law, to the said John H. Belter, his heirs, administrators, or assigns, for the term of fourteen years from the twenty-third day of February, one thousand eight hundred and fifty-eight, the full and exclusive right and liberty of making, constructing, using, and vending to others to be used, the said improvement, a description whereof is given in the words of the said John H. Belter in the schedule hereunto annexed, and is made part of these presents.

In testimony whereof I have caused these letters to be made patent, and the seal of the Patent Office has been hereunto affixed.

Given under my hand at the city of Washington this twenty-third day of February, in the year of our Lord one thousand eight hundred and fifty-eight, and of the Independence of the United States of America the eighty-second.

JACOB THOMPSON,
Secretary of the Interior.

Countersigned and sealed with the seal of the Patent Office.

[L. S.]

J. HOLT,
Commissioner of Patents.

403 The schedule referred to in these letters patent and making part of the same.

To all whom it may concern:

Be it known that I, John Henry Belter, of the city and county of New York, in the State of New York, have invented a new and useful improvement in pressed-work furniture, and I do declare that the following is a full and complete description of the same, reference being had to the accompanying drawings making part of this specification, in which—

Fig. 1 is a chair back finished and carved.

Fig. 2 is a chair back roughly manufactured.

Figs. 3, 4, and 5 horizontal sections of the same.

Fig. 6 a vertical section of the same.

Fig. 7 a horizontal section on a larger scale.

Fig. 8 one of the compound staves of which the chair back is composed.

Fig. 16 shows the end of one of the staves on a larger scale.

Fig. 9 indicates the appearance of the stave when unfinished.

Figs. 10, 11, and 12 are clamps between which the rough staves (Fig. 9) are held to be shaped. Fig. 13 is a tool by which the edges of the stave are reduced.

Fig. 14 shows the inside caul, and

Fig. 15 shows one of the outside cauls by which the product is perfected.

Fig. 17 shows a horizontal section of the internal and all the external cauls, with the hoop and screw for compressing them.

My invention consists in giving increased beauty, strength, and other valuable qualities to what is termed pressed-work furniture by constructing it of two or more layers of pressed-work staves constructed and arranged in the manner and form fully represented and described in this specification.

404 Pressed work is invariably composed entirely of veneers and glue. The grain of each veneer is laid at right angles to that of the next, and the whole being firmly and smoothly glued together it is a very strong and durable material. As veneers are not capable of being extended or compressed except to very slight extents, it has not been heretofore practicable to manufacture pressed work in any dishing forms. Pressed work has consequently been curved only in one plane so that each part forms a portion of a hollow cylinder or cone. But by my invention each portion of the pressed work, when completed, forms a portion of a hollow sphere or spheriod so that a section thereof in every possible plane exhibits a curved figure. It is well known that the transverse strength of any material (other things being equal) is greatly increased by causing it to present a curved or irregular section along the line exposed to rupture.

My dishing pressed work is from that cause stronger than that before known, as will be more fully explained below, and may consequently be made considerably lighter and somewhat cheaper.

To enable others skilled in the art to make and use my invention, I will proceed to describe it by the aid of the drawings which represent a chair back of this material with means for producing it.

My invention is not limited to the construction of chair backs, but may be applied to all kinds of pressed-work furniture in which dishing is desirable. Similar letters of reference refer to like parts in all the drawings.

Commencing on the front or inside, A, B, C, D (Figs. 1, 2, and 7), are properly shaped inside veneers, while *a*, *b*, *c*, *d*, respectively, represent short pieces of transverse veneers previously glued upon the first. A and *a* together compose one stave of the inner layer, and B *b*, C *c* and D *d* compose the other staves of that layer. These staves are a little narrower than those of the next or middle layer. E, F, G, H, I are the next veneers, the edge veneers E and I being narrower than the others in
405 consequence of a portion thereof being incorporated in other similar chair backs. The small letters *e*, *f*, *g*, *h*, *i* indicate the short horizontal veneers previously glued to the last named, and E′, F′, G′, H′, I′ indicate another set of veneers similar to E, F, G, H, I, but a little wider. E*e* and E′ previously glued firmly and continuously together compose the first in the second or middle layer, and F*f*, F′, G*g*, G′, H*h*, H′, and I*i*, I′ compose, respectively, the other staves in this layer.

The next veneers exterior to the middle layer just described are short horizontal veneers *j*, *k*, *l*, *m*, *n*. They are previously glued to the outside veneers J, K, L, M, N, and with them form the third or outside layer of staves. More staves may be constructed and added, composing a fourth or fifth layer if desired, but it is important that the last or exterior veneer shall be of good material, and with the grain running vertically, as such has a much better appearance than would be presented by horizontally grained veneers. In short the veneers A, B, C, D, which, when the work is in place, are exhibited to the observer on the front side, and the veneers J, K, L, M, N, which are shown on the back side, should be rosewood or the like highly-prized wood, while all the rest may be oak, hickory, black walnut, or other cheap wood.

There are perfectly close joints in this work distributed so as not to be opposite to each other. By reference to Fig. 7 it will be especially observed that the joint between the stave A *a* and the stave B *b* is not opposite to the joint between the stave F *f* F′ and the stave G *g* G′, nor again is the latter opposite to that between J *j* and K *k*, and this distribution adds to the strength of the work.

The means I have adopted for giving the proper form to the staves and correctly applying them together is as follows: I take sufficiently long strips of veneer, 1 (Fig. 9) and covering the whole of one side with glue, apply to it the short pieces 2, 2, etc., and compress the whole between
406 either plane or slightly dishing cauls until cold. Then laying a sufficient number of these, which may be termed "rough staves," together, between the clamps 3 and 4 (Figs. 10, 11, and 12), I turn the screws 5, 5 and confine them while I apply the peculiar plane 6 and reduce the edges to the condition shown in Fig. 12. The clamps 3, 4 are wedge-shaped in section as represented and the staves which lie nearest the left or outer side of the clamps are therefore widest when finished, but the edges of all are trimmed perfectly to the proper shape. This operation shapes the staves.

On removing the staves from the clamp I assort them, and placing all the narrowest or inside staves in a suitable fixture, not represented, I saw a score in each end, as shown by P P in Figs. 8 and 16, so that the score is in the same position in all the staves of this inner layer. I do the same with the middle and outside staves, except that the score must be placed in a different position, Q Q or R R, in one or both of the latter. Having

properly heated the heavy inside caul, shown by Fig. 14, and also a suitable number of corresponding outside cauls, one of which is shown by Fig. 15, and provided suitable means of clamping the whole very firmly together, I apply glue to the exterior face of an inner stave and insert one end within a ring represented in red, resting the score P astride the edge of one of the knives 7, which latter are fixed edge upward around the base of the caul, Fig. 14. The upper end is then placed within a similar ring at the top, and the upper score fixed astride a similar knife, not represented. This process being repeated with all the inner staves, it follows that all of this series are held in exactly their proper position to match perfectly together, or are held ready to be forced into such position so soon as the pressure is applied from outside.

The staves of the middle series are next immediately applied, and as the scores in their ends are also placed astride of the knives 7, their
407 joints necessarily come in different positions from those of the inner series. I repeat this process for any number of layers of staves, working rapidly to prevent the glue from becoming cold before the placing of the staves is completed. When all are in this position the outer cauls (Figs. 15 and 17) are applied and compressed.

On the removal of the latter, some 24 hours afterwards, the new artificial product, which I term dishing pressed work, envelopes the interior caul, and is removed by cutting with a knife or saw along the lines indicated. One such lot of material produces 8 chair backs, 4 above and 4 below, the tops being cut as represented to facilitate an ornamental finish.

I have minutely represented and described only a chair back with the means for producing the same, but the cauls and clamps require simply to be varied in form to produce suitable staves and moulds for constructing other articles in a similar manner.

This work is more graceful in appearance and better adapted in form to its intended use than ordinary pressed work, and is much stronger and stiffer. The dishing form in effect adds to the thickness of the material. When a transverse strain is applied to my pressed work in any direction whatsoever the force tends to compress a portion or portions of the material, and to extend another or others, thus greatly increasing its ability to withstand such strains according to laws well recognized.

The pressed work made in the ordinary manner of sheets simply glued together without being formed into staves is capable of being curved or bent in one direction only. My work is capable of resisting with great power transverse strains applied in any direction and tending to break it along any line. In the method of construction I have described the whole assumes exactly the form desired without splitting or wrinkling, and with all the joints mathematically close and perfect.

I do not claim the simple pressing of veneers and glue between
408 dies or "cauls," one of which is convex and the other or others concave, nor do I claim the so gluing of veneers together that the grain of each stands at right angles to that of the next; but having now fully shown the nature and construction of my improved pressed work, what I claim as my invention and desire to secure by letters patent is:

1st. The within described method of accurately finishing at one operation a suitable stave for each layer of the spherical work herein described, viz, the applying together of as many of the roughly manufactured staves

as there are to be layers in the work, and bending the whole between clamps of the form and level required, and removing the superfluous material by a plane or its equivalent substantially as and for the purposes set forth.

2d. I claim the applying together of the edges of the staves of the several layers at one operation by confining the staves in their proper positions at one or more points and compelling the remainder of the edges to guide each other as the cauls are compressed, substantially in the manner and for the purposes set forth.

3d. I claim the within described method of accurately breaking the joints of the several layers of staves by notching the ends of the staves of each layer differently from the staves of the other layers and resting the notches of all the staves across knife edges projecting perpendicularly from the surface of the inside call, all in the manner and for the purposes within set forth.

J. H. BELTER.

Witnesses:
THOMAS D. STETSON.
JOS. C. DAY.
Ex'd: M. McK., J. A. W.
Ex'd: J. A. W., M. McK.

(Here follows diagram marked page 409.)

410 DEFENDANTS' EXHIBIT BELLOWS' PATENT.—J. T. L., *Special Examiner, May* 5, 1881.

[2—175.]

Department of the Interior, United States Patent Office, to all persons to whom these presents shall come, greeting:

This is to certify that the annexed is a true copy from the records of this office of the letters patent granted Zebulon B. Bellows March 15, 1859, No. 23225, for improved chair bottoms.

In testimony whereof I, E. M. Marble, Commissioner of Patents, have caused the seal of the Patent Office to be hereunto affixed this thirty-first day of March, in the year of our Lord one thousand eight hundred and eighty-one, and of the Independence of the United States the one hundred and fifth.

[SEAL.] E. M. MARBLE,
Commissioner.

No. 23225.

United States of America to all to whom these letters patent shall come:

Whereas Zebulon B. Bellows, of Cortlandville, New York, has alleged that he has invented a new and useful improved chair bottoms, which he states have not been known or used before his application; has made oath that he is a citizen of the United States; that he does verily believe that he is the original and first inventor or discoverer of the said bot-
411 toms, and that the same have not, to the best of his knowledge and belief, been previously known or used; has paid into the

Treasury of the United States the sum of thirty dollars, and presented a petition to the Commissioner of Patents signifying a desire of obtaining an exclusive property in the said bottoms, and praying that a patent may be granted for that purpose:

These are, therefore, to grant, according to law, to the said Zebulon B. Bellows, his heirs, administrators, or assigns, for the term of fourteen years from the fifteenth day of March, one thousand eight hundred and fifty-nine, the full and exclusive right and liberty of making, constructing, using, and vending to others to be used, the said bottoms, a description whereof is given in the words of the said Zebulon B. Bellows in the schedule hereunto annexed, and is made part of these presents.

In testimony whereof I have caused these letters to be made patent, and the seal of the Patent Office has been hereunto affixed.

Given under my hand, at the city of Washington, this fifteenth day of March, in the year of our Lord one thousand eight hundred and fifty-nine, and of the Independence of the United States of America the eighty-third.

JACOB THOMPSON,
Secretary of the Interior.

Countersigned and sealed with the seal of the Patent Office.
[SEAL.]
S. T. SHUGERT,
Acting Commissioner of Patents.

(Here follows diagram marked page 412.)

413 The schedule referred to in these letters patent and making part of the same.

To all whom it may concern:

Be it known that I, Zebulon B. Bellows, of Cortlandville, in the county of Cortland, in the State of New York, have invented an improved mode of seating chairs, and I do hereby declare that the following is a full and exact description of the said invention:

The nature of my invention consists in providing bent, stamped, or pressed seats for chairs of any or all kinds or qualities, made of boards or planks, so that the form or shape of the seat will fit and conform to the shape of the person who shall occupy the chair. To enable others to make and use my invention I will describe the construction and operation of my chair seat: First. I take the boards and saw them to the required length for a single seat. I then boil or steam them, then put them into a mould and apply the power of a press sufficient to form them in a concave form and of the desired shape. The mould may be constructed of wood or iron.

What I claim as my invention, and desire to secure by letters patent, is the application to chairs of a bent, stamped, or pressed board for a seat.

ZEBULON B. BELLOWS.

Witnesses:
NOAH H. OSBORNE.
M. H. OSBORNE.

Ex'd: C. F., M. V.
Ex'd: J. A. W., M. McK.

414 DEFENDANTS' EXHIBIT TICE PATENT.—J. T. L., *Special Examiner, May 5*, 1881.

[2—175.]

Department of the Interior, United States Patent Office, to all persons to whom these presents shall come, greeting:

This is to certify that the annexed is a true copy from the records of this office of the reissue letters patent granted Isaac P. Tice, June 27, 1865, No. 2016, for improved chair bottom or back.

In witness whereof I, E. M. Marble, Commissioner of Patents, have caused the seal of the Patent Office to be hereunto affixed this 31st day of March, in the year of our Lord one thousand eight hundred and eighty-one, and of the Independence of the United States the one hundred and fifth.

[SEAL.]

E. M. MARBLE,
Commissioner.

Reissue No. 2016.

United States of America to all to whom these letters patent shall come:

Whereas Isaac P. Tice, of New York, New York, assignee by mesne assignments of Austin S. Smith, has alleged that said Austin S. Smith invented a new and useful improved chair bottom or back (for which letters patent were issued to him dated May 25, 1858, which letters having
415 been surrendered by said assignee, the same have been canceled and new letters ordered to issue to him on an amended specification), which he stated had not been known or used before his application; had made oath that he was a citizen of the United States; that he did verily believe that he was the original and first inventor or discoverer of the said invention, and that the same hath not, to the best of his knowledge and belief, been previously known or used; said assignee having paid into the Treasury of the United States the sum of thirty dollars, and presented a petition to the Commissioner of Patents, signifying a desire of obtaining an exclusive property to the said invention, and praying that a patent may be granted for that purpose:

These are, therefore, to grant, according to law, to the said Isaac P. Tice, his heirs, administrators, or assigns, for the term of fourteen years from the twenty-fifth day of May, one thousand eight hundred and fifty-eight, the full and exclusive right and liberty of making, constructing, using, and vending to others to be used, the said invention, a description whereof is given in the words of the said Isaac P. Tice in the schedule hereunto annexed, and is made part of these presents.

In testimony whereof I have caused these letters to be made patent, and the seal of the Patent Office has been hereunto affixed.

Given under my hand, at the city of Washington, this twenty-seventh day of June, in the year of our Lord one thousand eight hundred and sixty-five, and of the Independence of the United States of America the eighty-ninth.

W. T. OTTO,
Acting Secretary of the Interior.

Countersigned and sealed with the seal of the Patent Office.

[SEAL.] D. P. HOLLOWAY,
Commissioner of Patents.

416 The schedule referred to in these letters patent and making part of the same.

To all whom it may concern:

Be it known that I, Isaac P. Tice, of the city, county, and State of New York, am the assignee through mesne assignment of letters patent granted May 25, 1858, to Austin S. Smith for a combined chair and cradle, and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings forming part of this specification, in which—

Figure 1 is a side view.

Figure 2 is a plan.

Figure 3 is a vertical section from back to front of the seat and back of the chair.

Similar letters of reference indicate corresponding parts in the several figures.

The want of some suitable substitute for cane for the bottoms or seats and backs of chairs, and other articles of furniture used for sitting and recumbent purposes, has long been felt in the furniture trade, for the reason that cane bottoms or seats and backs are very expensive for low-priced furniture and will not bear rough usage.

The most important feature of this invention consists in the manufacture of the bottoms or seats and backs of chairs and other articles of furniture for sitting and recumbent purposes of perforated sheet metal, which is at the same time less expensive and more durable than cane.

The manner in which the perforated material may be best employed for the above-mentioned purpose is to construct a supporting frame of wood or other stiff material of suitable form, according to the character of the chair or other piece of furniture, and to attach the edges of the sheet or sheets of perforated metal used for the bottom or seat and back to the said frame by nails, tacks, or other suitable fastenings.

417 In the combined rocking chair and cradle represented, the perforated sheet A, forming the bottom or seat, and the perforated sheet B, forming the back, are attached by soldering to transverse bars or ribs *a a* (Fig. 3) of metal, the ends of which rest upon and are secured to the frame C and D of the bottom or seat and the back respectively, but it is obvious that if the sheet metal is made of sufficient thickness these cross-bars or ribs might be dispensed with and the perforated sheet metal be attached simply to the frames C and D.

The perforated sheets may be of iron or other metal, and its perforations may be of any suitable form, as, for instance, circular, or of a form resembling the interstices or reticulations produced by the weaving or interlacing of the strips of cane in a cane bottom or back.

The perforated sheet metal is not only as good as cane in those respects in which cane is considered superior to other materials or fabrics employed for the bottoms or seats and backs of chairs and other articles of furniture, viz, its coolness and the ventilation it affords to the clothing of persons,

but it is cheaper and more durable, and so much smoother as to be less destructive to wearing apparel.

In the combined rocking chair and cradle which is represented as an example of the application of the invention, the frame C of the bottom or seat, and the frame D of the back are so pivoted or jointed together, and with the arms E, E, and the foot-rest bars F, F, so jointed with the arms E, E and frame C as to be converted into a chair or a cradle at pleasure.

What I claim as the invention of Austin S. Smith, and desire to secure by letters patent, is—

The employment of perforated sheet metal in the bottoms or
418 seats and backs of chairs and other articles of furniture for sitting and recumbent purposes, substantially as herein described.

ISAAC P. TICE.

Witnesses:
J. W. COOMBS.
HENRY T. BROWN.

Examined: H. M. H., L. J.

(Here follows diagram marked page 419.)

420 DEFENDANTS' EXHIBIT BRAMHILL PATENT.—J. T. L., *Special Examiner, May* 5, '81.

[2—175.]

Department of the Interior, United States Patent Office, to all persons to whom these presents shall come, greeting:

This is to certify that the annexed is a true copy from the records of this office of the letters patent granted William Bramhill, November 28, 1865, No. 51132, for chair bottom and back.

In testimony whereof I, E. M. Marble, Commissioner of Patents, have caused the seal of the Patent Office to be hereunto affixed this second day of April, in the year of our Lord one thousand eight hundred and eighty-one, and of the Independence of the United States the one hundred and fifth.

[SEAL.] E. M. MARBLE,
Commissioner.

No. 51132.

United States of America to all to whom these letters patent shall come:

Whereas William Bramhill, of New York, New York, has alleged that he has invented a new and useful chair bottom and back, which he states has not been known or used before his application; has made oath that he
421 is a citizen of the United States; that he does verily believe that he is the original and first inventor or discoverer of the said invention, and that the same hath not, to the best of his knowledge and belief, been previously known or used; has paid into the Treasury of the United States the sum of thirty-five dollars, and presented a petition to the Com-

missioner of Patents signifying a desire of obtaining an exclusive property in the said invention, and praying that a patent may be granted for that purpose.

These are, therefore, to grant, according to law, to the said William Bramhill, his heirs, administrators, or assigns, for the term of seventeen years from the twenty-eighth day of November, one thousand eight hundred and sixty-five, the full and exclusive right and liberty of making, constructing, using, and vending to others to be used, the said invention, a description whereof is given in the words of the said William Bramhill, in the schedule hereunto annexed, and is made part of these presents.

In testimony whereof I have caused these letters to be made patent, and the seal of the Patent Office has been hereunto affixed.

Given under my hand, at the city of Washington, this twenty-eighth day of November, in the year of our Lord one thousand eight hundred and sixty-five, and of the Independence of the United States of America the nineteenth.

W. T. OTTO,
Acting Secretary of the Interior.

Countersigned and sealed with the seal of the Patent Office.
[SEAL.] T. C. THEAKER,
Commissioner of Patents.

422 UNITED STATES PATENT OFFICE.

William Bramhill, of New York, N. Y. Chair bottom and back. Specification forming part of letters patent No. 51132, dated November 28, 1865.

To all whom it may concern:

Be it known that I, William Bramhill, of the city, county, and State of New York, have invented a new and useful improvement in chairs and other articles of furniture for sitting and recumbent purposes; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a plan of a chair bottom constructed according to my invention. Fig. 2 is a vertical section of the same.

Similar letters of reference indicate corresponding parts in both figures.

This invention consists in the employment of soft vulcanized sheet India-rubber or India-rubber cloth in the bottoms and backs of chairs and other seats and articles of furniture for sitting and recumbent purposes, such as stools, sofas, lounges, and the seats of public conveyances. This material, being flexible and elastic, possesses all the advantages of a cushion in adapting itself to the shape of the person, while it is more durable, more easily kept clean and free from vermin, and permits free ventilation to the person and clothing.

The vulcanized India-rubber or India-rubber cloth is to be stretched or kept extended to form the seat-bottom or back on a frame of wood or other suitable stiff material. When sheet India-rubber without cloth is used the perforations may be formed by punching or cutting the vulcanized sheet, or the sheet-rubber may be manufactured with suitable perfora-

tions; but when vulcanized India-rubber cloth is used the perforations will be punched or cut from the cloth after its manufacture, in the usual manner.

The vulcanized India-rubber or India-rubber cloth may be attached to the frame of wood or other rigid material in various ways; but I consider that mode which I have represented as well suited as any other, and I will proceed to describe it.

A is the inner frame, of wood, of suitable form, over the edges of which the pieces of perforated sheet India-rubber or India-rubber cloth B, of sufficiently large size, are stretched, and to which it is nailed or otherwise suitably fastened. Around the overlapping margin *a a* of the piece B are placed strips C C, of wood, which are attached to the frame A by means of screws *b b* or nails, and which are thereby made to assist in securing the margin *a a* to the frame A, or which may be made to secure the said margin to the said frame without any other aid.

What I claim as my invention, and desire to secure by letters patent, is—

The employment of perforated elastic vulcanized India-rubber or India-rubber cloth, substantially as herein described, in the bottoms and backs of chairs and other articles of furniture for sitting and recumbent purposes.

WILLIAM BRAMHILL.

Witnesses:
J. W. COOMBS.
G. W. REED.

(Here follows diagram marked page 423.)

224 DEFENDANTS' EXHIBIT COCHRAN PATENT.—J. T. L., *Special Examiner, May* 5, 1881.

[2—175.]

Department of the Interior, United States Patent Office, to all persons to whom these presents shall come, greeting:

This is to certify that the annexed is a true copy from the records of this office of the letters patent granted J. W. Cochran, May 22, 1866, ante-dated May 7, 1866, No. 54863, for chair, sofa, and car seat.

In testimony whereof I, E. M. Marble, Commissioner of Patents, have caused the seal of the Patent Office to be hereunto affixed this second day of April, in the year of our Lord one thousand eight hundred and eighty-one, and of the Independence of the United States the one hundred and fifth.

[SEAL.] E. M. MARBLE,
Commissioner.

No. 54863.

United States of America to all to whom these letters patent shall come:

Whereas J. W. Cochran, of New York, New York, has alleged that he has invented a new and useful chair, sofa, and car seat, which he states has

not been known or used before his application; has made oath that he is a citizen of the United States; that he does verily believe that he is
425 the original and first inventor or discoverer of the said invention, and that the same hath not, to the best of his knowledge and belief, been previously known or used; has paid into the Treasury of the United States the sum of thirty-five dollars, and presented a petition to the Commissioner of Patents signifying a desire of obtaining an exclusive property in the said invention, and praying that a patent may be granted for that purpose:

These are, therefore, to grant, according to law, to the said J. W. Cochran, his heirs, administrators, or assigns, for the term of seventeen years from the seventh day of May, one thousand eight hundred and sixty-six, the full and exclusive right and liberty of making, constructing, using, and vending to others to be used, the said invention, a description whereof is given in the words of the said J. W. Cochran in the schedule hereunto annexed, and is made part of these presents.

In testimony whereof I have caused these letters to be made patent, and the seal of the Patent Office has been hereunto affixed.

Given under my hand, at the city of Washington, this 22d day of May, in the year of our Lord one thousand eight hundred and sixty-six, and of the Independence of the United States of America the ninetieth.

W. T. OTTO,
Acting Secretary of the Interior.

Countersigned and sealed with the seal of the Patent Office.
[SEAL.] T. C. THEAKER,
Commissioner of Patents.

426 UNITED STATES PATENT OFFICE.

J. W. Cochran, of New York, N. Y. Chair, sofa, and car seats. Specification forming part of letters patent No. 54863, dated May 22, 1866; antedated May 7, 1866.

To all whom it may concern:

Be it known that I, J. Webster Cochran, of the city, county, and State of New York, have invented a new and improved mode of constructing chair, sofa, car, and carriage seats; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and to the letters marked thereon.

The nature of my invention consists in the employment of India-rubber or gutta-percha enameled, in whole or perforated (open-worked) sheets, for the seats and backs of chairs, sofas, car seats, carriages, and lining thereof, and for mattresses. The material may be attached either by lacing, gluing, cementing, screwing, or nailing.

The drawing represents a common chair, *a*, in perspective, showing the seat *b* made of hardened or enameled India-rubber or gutta-percha, perforated or open-worked.

What I claim as my invention, and desire to secure by letters patent, is—

The employing the perforated or whole sheets of hardened or enameled

India-rubber or gutta-percha for chair, sofa, car, and carriage seats, substantially as above described and set forth.

J. W. COCHRAN.

Witnesses:
D. M. GRIFFIN.
H. B. WHITBECK.

(Here follows diagram marked page 427.)

428 DEFENDANTS' EXHIBIT FARMER PATENT.—J. T. L., *Special Examiner, May* 7, 1881.

[2—175.]

Department of the Interior, United States Patent Office, to all persons to whom these presents shall come, greeting:

This is to certify that the annexed is a true copy from the records of this office of the letters patent granted William S. Farmer, May 1st, 1866, No. 54314, for improved seat and back for chairs.

In testimony whereof I, E. M. Marble, Commissioner of Patents, have caused the seal of the Patent Office to be hereunto affixed, this second day of April, in the year of our Lord one thousand eight hundred and eighty-one, and of the Independence of the United States the one hundred and fifth.

[SEAL.] E. M. MARBLE,
Commissioner.

No. 54314.

United States of America to all to whom these letters patent shall come:

Whereas William S. Farmer, of New York, New York, has alleged that he has invented a new and useful improved seat and back for chairs, which he states has not been known or used before his application;

429 has made oath that he is a citizen of the United States; that he does verily believe that he is the original and first inventor or discoverer of the said invention, and that the same hath not, to the best of his knowledge and belief, been previously known or used; has paid into the Treasury of the United States the sum of thirty-five dollars, and presented a petition to the Commissioner of Patents signifying a desire of obtaining an exclusive property in the said invention, and praying that a patent may be granted for that purpose.

These are, therefore, to grant, according to law, to the said William S. Farmer, his heirs, administrators, or assigns, for the term of seventeen years from the first day of May, one thousand eight hundred and sixty-six, the full and exclusive right and liberty of making, constructing, using, and vending to others to be used, the said invention, a description whereof is given in the words of the said William S. Farmer in the schedule hereunto annexed and is made part of these presents.

In testimony whereof I have caused these letters to be made patent, and the seal of the Patent Office has been hereunto affixed.

Given under my hand, at the city of Washington, this first day of May, in the year of our Lord one thousand eight hundred and sixty-six, and of the Independence of the United States of America the ninetieth.

W. T. OTTO,
Acting Secretary of the Interior.

Countersigned and sealed with the seal of the Patent Office.
[SEAL.] T. C. THEAKER,
Commissioner of Patents.

430 UNITED STATES PATENT OFFICE.

William S. Farmer, of New York, N. Y. Improved seat and back for chairs. Specification forming part of letters patent No. 54314, dated May 1, 1866.

To all whom it may concern:

Be it known that I, W. S. Farmer, of the city, county, and State of New York, have invented a new and useful improvement in chairs and other seats and articles of furniture for sitting and recumbent purposes; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is perspective view, showing a chair constructed according to my invention. Fig. 2 is a vertical transverse section of the seat thereof. Similar letters of reference indicate corresponding parts in both figures.

This invention consists in the construction of the bottoms and backs of chairs and other seats and articles of furniture for sitting or recumbent purposes, of perforated sheets of raw and untanned hide, which, being very strong in proportion to its weight, and very durable and easily kept clean and free from vermin, and also capable of being stamped or embossed in any desired ornamental pattern or configuration, forms a very superior material for the purpose named.

To enable others to understand the nature and construction of my invention, I will proceed to describe it with reference to the drawings.

In the construction of the bottom of the chair represented in the drawings the sheet of raw hide A is stretched or extended upon the surrounding horizontal frame B and secured at its edges to the said frame by means of nails, screws, or any other suitable means, the edges of the aforesaid sheet being placed in a rabbet (shown at *a* in Fig. 2), so that the upper surface of the said sheet of raw hide is flush with the upper surface of the frame B. Previous to being secured upon the frame B, as just set forth, the sheet A of raw hide is perforated by means of a suitable punch or cutter with any desired number of holes or perforations, *r*, the said holes being of any requisite size or shape, and greatly increasing the ornamental appearance of the seat formed by the said sheet. Furthermore, by subjecting the sheet of raw hide in a wet condition to a suitable embossing process any desired pattern or configuration may be impressed upon it to ornament its surface.

In the construction of the back of the chair the sheet or raw hide marked C is formed in same way as for the sheet A, forming the seat thereof, as

just set forth, and is extended upon and secured to the frame D of the said back in the same manner as the sheet A is to the frame B.

What I claim as new, and desire to secure by letters patent, is—

The employment of sheets of raw hide in the bottoms and backs of chairs and other articles of furniture for sitting and recumbent purposes, when perforated and embossed, substantially as herein set forth.

WM. S. FARMER.

Witnesses:
HENRY T. BROWN.
A. LE CLERC.

(Here follows diagram marked page 431.)

432 DEFENDANTS' EXHIBIT PRATT PATENT.—J. T. L., *Special Examiner, May* 7, 1881.

[2—175.]

Department of the Interior, United States Patent Office, to all persons to whom these presents shall come, greeting:

This is to certify that the annexed is a true copy from the records of this office of the letters patent granted H. T. Pratt, July 29, 1862, No. 36026, for improved seats and backs for chairs.

In testimony whereof I, E. M. Marble, Commissioner of Patents, have caused the seal of the Patent Office to be hereunto affixed this second day of April, in the year of our Lord one thousand eight hundred and eighty-one, and of the Independence of the United States the one hundred and fifth.

[SEAL.] E. M. MARBLE,
Commissioner.

No. 36026.

United States of America to all to whom these letters patent shall come:

Whereas H. T. Pratt, of Fitchburgh, Massachusetts, has alleged that he has invented a new and useful improved seats and backs for chairs, which he states has not been known or used before his application; has
433 made oath that he is a citizen of the United States; that he does verily believe that he is the original and first inventor or discoverer of the said invention, and that the same hath not, to the best of his knowledge and belief, been previously known or used; has paid into the Treasury of the United States the sum of thirty-five dollars, and presented a petition to the Commissioner of Patents signifying a desire of obtaining an exclusive property in the said invention and praying that a patent may be granted for that purpose.

These are, therefore, to grant, according to law, to the said H. T. Pratt, his heirs, administrators, or assigns, for the term of seventeen years from the twenty-ninth day of July, one thousand eight hundred and sixty-two, the full and exclusive right and liberty of making, constructing, using, and vending to others to be used, the said invention, a description whereof is

given in the words of the said H. T. Pratt in the schedule hereunto annexed, and is made part of these presents.

In testimony whereof I have caused these letters to be made patent, and the seal of the Patent Office has been hereunto affixed.

Given under my hand, at the city of Washington, this twenty-ninth day of July, in the year of our Lord one thousand eight hundred and sixty-two, and of the Independence of the United States of America the eig'ty-seventh.

J. P. USHER,
Acting Secretary of the Interior.

Countersigned and sealed with the seal of the Patent Office.
[SEAL.] D. P. HOLLOWAY,
Commissioner of Patents.

434 The schedule referred to in these letters patent and making part of the same.

To all whom it may concern:

Be it known that I, H. T. Pratt, of Fitchburgh, in the county of Worcester and State of Massachusetts, have invented a new and useful improvement in seats and backs of chairs, &c., and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents a plan or top view of my invention.

Figure 2 is a longitudinal vertical section of the same, the line *x x*, Fig. 1, indicating the plane of section.

Similar letters of reference in both views indicate corresponding parts.

The object of this invention is to produce a cheap, convenient, durable, and elastic seat and back for chairs, settees, &c., entirely out of wood; and the invention consists in the employment or use of a thin sheet of wood, provided with a number of longitudinal slats and secured to the frame of the seat or back of a chair, or other similar articles, in such a manner that by said sheet of wood a series of elastic slats are formed which extend across the frame, and which form a cheap, durable, and convenient seat or back.

To enable those skilled in the art to make and use my invention I will proceed to describe it with reference to the drawing.

The frame A of my seat is constructed in the usual manner, and its shape is altered to suit the article for which it is to be used, and the taste and convenience of the public. This frame is covered by a thin sheet, B, is of wood, which is glued on it or fastened to it in any other convenient manner. This sheet is provided with a number of slots, *a*, cut
435 out so that a series of thin, narrow slats, *b*, are formed, which extend across the open space enclosed by the frame A. Each of these slats is elastic, and when a weight is placed on them they sink down and support the same, and as soon as the weight is taken off they spring back to their original position.

It is obvious that a single thin, narrow slat would not be capable of supporting the weight of the human body, but the weight is divided over a

number of them, and they are therefore not liable to break. Besides this it is the tensile strength of each slat which comes into play; that is to say, in order to break one of said slats the fibres of the wood would have to be torn asunder, and for this reason the sheet B can be taken very thin without rendering the slats *a* too weak for a seat.

It is obvious that my invention is equally applicable to the seats and *and* also to the backs of chairs or settees or other similar articles, and by its use a very light, cheap, durable, and convenient article is produced.

Having thus fully described my invention, what I claim as new and desire to secure by letters patent, is:

The employment or use of a thin sheet, B, of wood provided with narrow slats *a* in combination with the frame of a seat or back of a chair or other similar article, substantially as and for the purpose herein shown and described.

H. T. PRATT.

Witnesses:
W. J. MERRIAM.
DANIEL CROSS.

Ex'd: C. F., L. M.

(Here follows diagram marked page 436.)

437 DEFENDANTS' EXHIBIT GARDNER PATENT NO. 127044.—J. T. L., *Special Examiner*, *May* 7, 1881.

[2—175.]

Department of the Interior, United States Patent Office, to persons to all whom these presents shall come, greeting:

This is to certify that the annexed is a true copy from the records of this office of the letters patent granted George Gardner and Gardner and Gardner May 21, 1872, No. 127044, for improvement in chair seats.

In testimony whereof I, E. M. Marble, Commissioner of Patents, have caused the seal of the Patent Office to be hereunto affixed this thirty-first day of March, in the year of our Lord one thousand eight hundred and eighty-one, and of the Independence of the United States the one hundred and fifth.

[L. S.] E. M. MARBLE,
Commissioner.

No. 127044.

The United States of America, to all to whom these presents shall come:

Whereas, George Gardner, of Glen Gardner, New Jersey, has presented to the Commissioner of Patents a petition praying for the grant of letters patent for an alleged new and useful improvement in chair seats, he having assigned two-thirds of his right, title, and interest in said im-
438 provement to Gardner & Gardner, a description of which invention is contained in the specification of which a copy is hereunto annexed and made a part hereof, and has complied with the various requirements of law in such cases made and provided; and whereas, upon due exami-

nation made, the said claimant is adjudged to be justly entitled to a patent under the law:

Now, therefore, these letters patent are to grant unto the said George Gardner and Gardner & Gardner, their heirs or assigns, for the term of seventeen years from the twenty-first day of May, one thousand eight hundred and seventy-two, the exclusive right to make, use, and vend the said invention throughout the United States and the Territories thereof.

In testimony whereof I have hereunto set my hand and caused the seal of the Patent Office to be affixed, at the city of Washington, this twenty-first day of May, in the year of our Lord one thousand eight hundred and seventy-two, and of the Independence of the United States of America the ninety-sixth.

B. R. COWEN,
Acting Secretary of the Interior.

Countersigned:
[SEAL.]

M. D. LEGGETT,
Commissioner of Patents.

439 127044.

UNITED STATES PATENT OFFICE.

George Gardner, of Glen Gardner, New Jersey, assignor of two-thirds of his right to Gardner & Gardner. Improvement in chair seats. Specification forming part of letters patent No. 127044, dated May 21, 1872.

Specification of George Gardner, of Glen Gardner, in the county of Hunterdon and State of New Jersey, for improvement in chair seats.

This invention relates to an improved seat for chairs, &c.; and it consists of layers of veneering, each alternate one of which has its grain running in an opposite direction to that of the intermediate one, in combination with one or more layers of textile or fibrous material, substantially as hereinafter more fully set forth and claimed.

Figure 1, in the annexed drawing, illustrates a plan view of my improved chair seat with a part of the upper or top layer of veneering broken away, exhibiting a layer of canvas or other textile material, and a portion of said canvas removed, showing a second layer of veneering with its grain running in a contrary direction to that of the said top layer; and Fig. 2 represents a longitudinal vertical section of the same.

Like parts in the two figures are designated by similar letters.

To enable others to make and use my invention I will proceed to describe it:

In the accompanying drawing I show three layers of veneering, A, B, C, and a single layer of canvas, E, which are glued together and secured within the frame D.

In practice the layers of veneering and canvas may be increased in number, if desired. Any textile or fibrous material may be made to serve the purpose of the canvas; but I prefer the canvas, as it is both cheap and durable.

Although the seat has been described as being applicable to chairs only,

still I do not confine myself to its use in any particular article of furniture. If desired, the seat may be perforated for ventilation and ornamentation.

Having thus described my invention, what I claim, and desire to secure by letters patent, is:

An improved seat, consisting of layers of veneering, the grains of which run in opposite directions, in combination with one or more layers of textile material, substantially as herein shown and described.

In testimony whereof I have hereunto signed my name this 15th day of January, 1872, in presence of two subscribing witnesses.

GEO. GARDNER.

Witnesses:

PHILIP G. VROOM.
JOSEPH H. GARDNER.

(Here follows diagram marked page 440.)

441 DEFENDANTS' EXHIBIT GARDNER REISSUE NO. 7202.—J. T. L., *Special Examiner, May* 7, 1881.

[2—175.]

Department of the Interior, United States Patent Office, to all persons to whom these presents shall come, greeting:

This is to certify that the annexed is a true copy from the records of this office of the reissue letters patent granted George, William, and Jane E. Gardner, July 4, 1876, No. 7202, for improvement in chair seats.

In testimony whereof I, E. M. Marble, Commissioner of Patents, have caused the seal of the Patent Office to be hereunto affixed this thirty-first day of March, in the year of our Lord one thousand eight hundred and eighty-one, and of the Independence of the United States the one hundred and fifth.

[L. S.] E. M. MARBLE,
Commissioner.

Reissue No. 7202.

The United States of America to all to whom these presents shall come, greeting:

Whereas George Gardner, of Brooklyn, New York, assignor, by mesne assignments to himself, William Gardner, and Jane E. Gardner, has presented to the Commissioner of Patents a petition praying for the reissue of letters patent for an alleged new and useful improvement in chair
442 seats (for which letters patent were issued to George Gardner and Gardner & Gardner, dated May 21, 1872, which letters having been surrendered, the same have been canceled and new letters ordered to issue to said assignees on an amended specification), a description of which invention is contained in the specification, of which a copy is hereunto annexed and made a part hereof, and has complied with the various requirements of law in such cases made and provided; and

Whereas, upon due examination made, the said claimant is adjudged to be justly entitled to a patent under the law:

Now, therefore, these letters patent are to grant unto the said George, William, and Jane E. Gardner, their heirs or assigns, for the term of seventeen years from the twenty-first day of May, one thousand eight hundred and seventy-two, the exclusive right to make, use, and vend the said invention throughout the United States and the Territories thereof.

In testimony whereof I have hereunto set my hand and caused the seal of the Patent Office to be affixed, at the city of Washington, this fourth day of July, in the year of our Lord one thousand eight hundred and seventy-six, and of the Independence of the United States of America the the one hundred and first.

CHARLES T. GORHAM,
Acting Secretary of the Interior.

Countersigned:
[L. S.]

R. H. DUELL,
Commissioner of Patents.

443 UNITED STATES PATENT OFFICE.

George Gardner, of Brooklyn, New York, assignor, by mesne assignments to himself, William Gardner, and Jane E. Gardner. Improvement in chair seats. Specification forming part of letters patent No. 127044, dated May 21, 1872; reissue No. 7202, dated July 4, 1876; application filed April 8, 1876.

To all whom it may concern:

Be it known that I, George Gardner, of the city of Brooklyn, county of Kings, and State of New York, have invented an improved bottom for seats, &c., of which the following is a specification:

This invention relates to improved bottoms for seats, &c.; and it consists of layers of veneering, each alternate one of which has its grain running in an opposite direction to that of the intermediate one, in combination with one or more layers of textile or fibrous material, substantially as hereinafter more fully set forth and claimed.

Figure 1 in the annexed drawing illustrates a plan view of the bottom of a seat having my improvement applied thereto, with a part of the upper or top layer of veneering broken away, exhibiting a layer of canvas or other textile or fibrous material, and a portion of said canvas or other textile or fibrous material removed, showing a second layer of veneering with its grain running in a contrary direction to that of the said top layer; and Fig. 2 represents a longitudinal vertical section of the same.

Like parts in the two figures are designated by similar letters.

To enable others to make and use my invention, I will proceed to describe it:

In the accompanying drawing I show three layers of veneering, A, F, C, and a single layer of canvas, or other textile or fibrous material, B, which are glued together and secured within the frame D.

In practice, the layers of veneering and canvas, or other textile or fibrous material, may be increased in number if desired. Any textile or fibrous material may be made to serve the purpose of the canvas; but I prefer the canvas, as it is cheap, strong, and durable.

Although I have described my improvement as applied to seats for

chairs, still I do not confine myself to its use in any particular article of furniture.

The bottom of the seat thus made may or may not be provided with perforations for the purpose of ventilation or ornamentation; but I prefer to make it so, and I also prefer to make it curved or concave on its upper side, as it materially adds to the comfort of those using it.

Having thus described my invention, what I claim and desire to secure by letters patent, is—

1. An improved bottom for a seat consisting of two or more layers of veneers of wood, with their grains crossing each other or diversified, in combination with one or more layers of textile or fibrous material, secured together by an adhesive material, substantially as described.

2. An improved bottom for a seat consisting of two or more layers of veneers of wood, with the grains crossing each other or diversified, in combination with one or more layers of textile or fibrous material, secured together by an adhesive substance, and having perforations formed therein for the purpose of ventilation or ornamentation, substantially as described.

3. The combination of a seat bottom constructed of two more veneers or thin layers of wood, having the grain of each layer laid crosswise of the other, and one or more layers of canvas or other textile or fibrous material interposed between any two or more of the adjoining veneers, and the whole secured together by an adhesive substance in the manner described, with the frame of a seat, substantially as set forth.

4. The combination of a seat bottom constructed of two or more veneers or thin layers of wood having the grain of each layer laid crosswise of the other, and one or more layers of canvas or other textile or fibrous material interposed beween any two or more of the adjoining veneers, and the whole secured together by an adhesive material, and provided with perforations, with the frame of a seat, in the manner substantially as and for the purposes set forth.

5. As a new article of manufacture, a bottom for a seat, consisting of two or more layers of wood, with one or more layers of canvas or
444 other textile or fibrous material interposed between any two or more of said veneers, and the whole secured together by an adhesive material, and provided with perforations, and with a curved or concave upper surface, in the manner and for the purposes set forth.

In testimony whereof I have hereunto signed my name this 6th day of March, 1876, in the presence of two subscribing witnesses.

GEO. GARDNER.

Witnesses:
CHARLES G. COE.
LOUIS W. FROST.

(Here follows diagram marked page 445.)

446 (Endorsed:) Defendants' Exhibit Botturi Patent, J. T. L., Special Examiner, May 5th, 1881. Certificate annexed. Great Seal Patent Office and office of Commissioner of Patents for inventions, March 24th, 1881. Seal of Comm'rs of Patents for inventions. Stamp patent, one shilling. This is to certify that the annexed is a true copy of specifica-

tion No. 2117, of 1857. (S. Botturi.) (S'g'd) Alfred T. White,
447 A. D. 1857. No. 2117. Specification of Sebastien Botturi, manufacturer of chairs and seats, London. Printed by George E. Eyre and William Spottiswoode, printers to the Queen's Most Excellent Majesty. Published at the Great Seal Patent Office, 25 Southampton Buildings, Holborn. Price, 7d. 1858.

448 Seal of the Comm'rs of Patents of Inventions.

A. D. 1857. No. 2117.

Manufacture of chairs and seats.

Letters patent to Sebastien Botturi, of Paris, France, Rue de la Roquette, 140, for the invention of "the making of movable chairs and seats of every kind and description, to be called Botturi's movable chairs and seats." Sealed the 26th January, 1858, in pursuance of an order of the Lord Chancellor, and dated the 5th August, 1857.

Provisional specification left by the said Sebastien Botturi, at the office of the Commissioners of Patents with his petition, on the 5th August, 1857.

449 I, Sebastien Botturi, of Paris, France, Rue de la Roquette, 140, do hereby declare the nature of the said invention for the "making of movable chairs and seats of every kind and description, to be called Botturi's movable chairs and seats," to be as follows:

An invention and machinery applicable to all kinds of chairs, viz, couch, canopy, arm-chairs, &c., &c., in whatever form or material. This mechanism permits of dismounting the seat of any chairs, either for cleaning or recovering them, instantaneously.

To obtain this result a wood frame of any kind of seat is taken; in the interior a moveable cushion is placed; this frame is furnished with all the necessary accessories for a seat, except the stuff to cover it; at the exterior of this seat, at the edge of the varnished wood, I make a channel following the sinuosity of the form of the seat; in this channel I place
450 a strong wire which is concealed by the channel itself. I cut the cloth or stuff which I wish to employ. I sew it lightly to the wire and fit it to the channel; then to consolidate the whole of it, I make use of a flat piece of iron (more or less wide according to fancy) which follows exactly the form of the wire. I fix it by means of pins or screws, &c., imperceptibles; this iron bar is covered with lace or any other kind of trimming. For a back of a seat I fix the cloth or stuff to the wire, which is placed in the channel hereinbefore mentioned. I adapt the cloth or stuff with which I wish to cover it, then I fix it in the same way with a flat piece of iron. I can equally employ different ways: 1st. I place in the interior of both seat and back a spring which opens and shuts
451 the wood frame at will, and allows any one to put in or take out the frame at any moment; 2nd. I have made a chair the back seat of which is lowered backward by the action of a spring or invisible hinges; by these means I can take out with great facility either the seat or back frames; 3rd. By means of drawer frames which may be taken out at will.

The advantage of these chairs in general consists in this, that the cloth or stuff not being nailed to the frames, the fitting of a room or suite of rooms may be easily changed into any other style with the greatest facility and without the trouble of taking out the nails, as is the case in the common way of making chairs, and which by nailing and unnailing are always much deteriorated. It may be cleaned with equal facility and advantage in taking out of the apartment the frames only, without moving the chairs from their usual place and avoiding all risk of deterioration in displacing them.

I claim the exclusive right to construct movable chair seats and backs, whatever may be the form or material of which they may be made.

2nd, of the chairs, arm-chairs, &c., with moveable frames, and with or without internal moveable cushion, and which, before my invention, was fixed on the chairs, &c., by plain cords.

3rd, of the moveable cushion and frames and furnished with elastic spring.

Specification filed in pursuance of the conditions of the letters patent, and of an order of the Lord Chancellor, by the said Sebastien Botturi, in the Great Seal Patent Office on the 27th February, 1858.

To all to whom these presents shall come, I, Sabastien Botturi, of Paris, No. 140 Rue de la Roquette, Empire of France, send greeting:

Whereas Her Most Excellent Majesty, Queen Victoria, by her letters patent, bearing date the fifth day of August, in the year of our Lord one thousand eight hundred and fifty-seven, in the twenty-first year of her reign, did, for herself, her heirs, and successors, give and grant unto me, the said Sebastien Botturi, her special license that I, the said Sebastien Botturi, my executors, administrators, and assigns, or such others as I, the said Sebastien Botturi, my executors, administrators, and assigns should at any time agree with, and no others, from time to time and at all times thereafter during the term therein expressed, should and lawfully might make, use, exercise, and vend within the United Kingdom of Great Britain and Ireland, the Channel Islands, and Isle of Man, an invention for "the making of movable chairs and seats, of every kind and description, to be called Botturi's movable chairs and seats," upon the condition (amongst others) that I, the said Sebastien Botturi, my executors or administrators, by an instrument in writing under *or* their, or one of their hands and seals, should particularly describe and ascertain the nature of the said invention, and in what manner the same was to be performed, and cause the same to be filed in the Great Seal Office Patent within six calendar months next and immediately after the date of said letters patent.

Now know ye that I, the said Sebastien Botturi, do hereby declare the nature of the said invention, and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement, that is to say: My invention consists of a mechanism applicable to all kinds of seats, such as canopies, arm-charms, chairs, divans, stools, &c., in whatever form or materials.

This mechanism permits of disconnecting the seats from the chairs with

rapidity, either for cleaning them or for changing the silk or other material with which they are covered and replacing it instantaneously by another kind.

To obtain this result I take a wooden seat, A, Fig. 1; I place in the interior K a movable frame B; I furnish this frame with all the necessary accessories for a seat, except the stuff with which it is to be covered, and which is put on afterwards; at the exterior of the seat, at the edge of the varnished wood, I make a channel, C, which follows the sinuosities of the seat. In this channel C I place a strong iron wire, D, which is
456 concealed in the channel; to consolidate the whole of it I make use of an iron band, E, which represents exactly the form of the iron wire, and which I fix by means of eyed pins, F, which are imperceptible; I make use indifferently of eyed pins, F, or screws, G, or springs, H. The band E, either of iron, copper, or any other metal, is covered with lace, fringe, or any other kind of trimming. For the back I the channel may be dispensed with. In this case the stuff and trimming are fixed on the band E, which is fixed by the same means as that of the seat. I have made an arm-chair, Fig. 2, in which I have dispensed with the channel C; the stuff has been fixed at once to the band E.

By another arrangement I place at the interior of the seat K and of the back I a spring J, which allows of opening and shutting the chair frame at will, and thus permits the removal of the movable frames and
457 seats on which the stuff and trimming are fixed. The exterior of the chair frame is furnished with two hinges, P.

The back M of the arm chair N, Fig. 3, is lowered behind by means of a spring, O, and the two hinges P, thus permitting the movable frames of the seats and backs to be taken away with facility. I obtain the same result by means of frame drawers, Q, Fig. 4, which may be taken out at pleasure. The same seats are likewise made with movable frames and cushions furnished with elastic springs.

The seat R, Fig. 5, of which the frame S is covered with stuff, is placed in the interior of the seat, leaving a space to receive the cushion V, which serves for daily use, but when a change is desired the cushion is taken away, the frame is elevated to the height required, and it is fixed
458 by means of screws, G, eyed-pins, F, or springs, H, or otherwise. The frame which is under the cushion has no stuff, in which case the stuff is fixed on a secured frame, U, which is put in the place of the cushion when this is taken away.

The advantage of these seats consists in this, that the stuff not being nailed to the frames, the furniture can be changed with the greatest rapidity without the trouble of nailing and unnailing the seats which always deteriorates them. The frames being movable they can be taken out of the apartment for the purpose of being cleaned.

By this system any one is enabled to change very quickly and without expense the furniture of a room or suite of rooms, and to replace at pleasure that which has been taken away; in this manner, with the same
459 movable wooden seat frame, persons can vary the pattern of their furniture as often as they please without having recourse to an upholsterer, which generally leads to considerable expense.

I claim the exclusive right: 1st. To construct or cause to be constructed all movable seats, whatever may be the form or materials of which they may be made.

2nd. To construct or cause to be constructed movable backs, so arranged as to allow the stuff to be changed at will.

3rd. To construct or cause to be constructed chairs, canopies, arm-chairs, divans, stools, &c., in whatever form or materials, with movable seats and frames, with or without movable cushions in the interior, and which till now have been fixed by twist.

4th. To construct or cause to be constructed movable frames and cushions furnished with elastic springs.

460 In witness whereof, I, the said Sebastien Botturi, have hereunto set my hand and seal this twenty-fourth day of February, in the year of our Lord one thousand eight hundred and sixty-eight.

S. BOTTURI. [L. S.]

London: Printed by George Edward Eyre and William Spottiswoode, printers to the Queen's Most Excellent Majesty, 1858.

I certify this to be a true copy.
(Signed) P. G. L. WEBB,
Clerk in the Patent Office.

(Here follows diagram marked page 461.)

462 At a stated term of the circuit court of the United States of America for the southern district of New York, in the second circuit, held at the United States court-rooms, in the city of New York, on the twenty-ninth day of May, in the year of our Lord one thousand eight hundred and eighty-two.

Present: The honorable William J. Wallace, circuit judge.

WILLIAM GARDNER ET AL.
vs.
MARTIN HERZ ET AL.

The above cause coming on this day for final hearing upon pleadings and proofs—

Mr. Philip J. O'Reilly is heard in behalf of the complainants.

Mr. James P. Foster is heard in behalf of the defendants.

Further argument adjourned to the 31st inst.

463 At a stated term of the circuit court of the United States of America for the southern district of New York, in the second circuit, held at the United States court-rooms, in the city of New York, on the thirty-first day of May, in the year of our Lord one thousand eight hundred and eighty-two.

Present: The honorable William J. Wallace, circuit judge.

WILLIAM GARDNER ET AL.
vs.
MARTIN HERZ ET AL.

The argument in the above cause being resumed—

Mr. Foster concludes his argument in behalf of the defendants.

Mr. George Gifford is heard in behalf of the complainants.
Curia advisari vult.

464 United States circuit court, southern district of New York.

WILLIAM GARDNER ET AL.
against
MARTIN HERZ & JOHN K. MAYO.

WALLACE, *J.:*

This action is brought to restrain the infringement of reissued letters patent No. 9094, dated Feb'y 24, 1880, granted to the assignee of George Gardner, for an improvement in chair seats. The reissue contains two claims, of which the second only need be stated, which is: "A chair seat made of laminæ of wood glued together with the grains in one layer crossing those of the next, concave on the upper surface, convex on the lower surface, and perforated as a new article of manufacture, substantially as set forth."

The original patent was granted to Gardner May 21, 1872,
465 and contained but a single claim, as follows: "As a new article of manufacture, a chair seat constructed of veneers of wood with the grain running crosswise of each other and glued together, all substantially as set forth, and for the purpose specified." This patent has been twice reissued the first reissue bearing date July 4, 1876. The first reissue has been before this court upon a motion for a preliminary injunction founded upon it, and it was decided by Judge Blatchford upon that occasion that none of the claims of that reissue were valid, except the sixth, which was not in controversy, and therefore was not considered. The second claim of that reissue was as follows: "As a new article of manufacture, a bottom for a seat frame constructed of two or more veneers or thin layers of wood with the grain of one layer crossing that of the other said layers, being secured together by an adhesive sub-
466 stance, and having perforations formed therein for the purpose of ventilation or ornamentation, substantially as set forth." On that occasion Judge Blatchford held that the claim of the original patent was anticipated by a patent granted to John K. Mayo, one of the present defendants, Dec. 26, 1865, and reissued to him and two others Aug 18, 1868, in 8 divisions. This patent was for an improvement in the manufacture of material which consisted in cementing together a number of scales or veneers of wood, with the grain of the successive pieces running crosswise or diversely, so as to form a firm material adapted for the construction of various articles, including chairs and settees. In division E of the reissue, the specification states "in the chair, Fig. 2, the bottom B may be formed of flexible material made up by the union of two or more thin layers of wood having the grain crossed or diversified in direction and united by suitable cement."

467 The specification also states that "by adopting the well-known process of wet and dry heating in the course of manufacture the several scales of wood may be brought to such a state of pliability as to assume any desired form by compression in a matrix or upon formers." Upon the occasion referred to Judge Blatchford likewise held that there

was no patentable novelty in the second claim of the first reissue of Gardner's patent in view of the patents prior to Gardner's, one to Tice and one to Cochrane, for perforated chair seats of metal or gutta-percha.

It follows therefore that the only question not heretofore decided by this court, and now open relating to the present reissue, is whether the concavity of form which is an element of the new claim in this reissue will support the patent.

468 Chair bottoms made of board and softened by steam, and pressed to a concave shape in a mould so that the form of the seat will conform to the shape of the person who may occupy it, are shown in the letters patent issued to Z. B. Bellows bearing date March 15, 1859. So also the concave or dishing form of chair seats had been adopted long before Gardner's patent in ordinary chair seats.

In the specification of the present reissue the inventor states that he does not lay any claim to the veneers crossing each other and glued together, as these have been used for various purposes and have become public property, and that he does not claim the pressing of a chair seat in the concave form by dies.

If there was no patentable novelty in using the perforations of the metal or gutta-percha chair seats in the veneer seats by Gardner, neither
469 can there seem to be any in employing a well known form of chair seat in his veneer seat. As it had been pointed out by Mayo that the material used is pliable and can be pressed into any desired form, and as the reissue disclaims the pressing of a chair seat in a concave form, and as chair seats had been so formed, it is difficult to see how there was any invention in Gardner's chair seat.

Gardner merely applied a process that was old to a material that was old to obtain an old form. Considered as a combination it is hardly possible to believe that the perforations or the concavity performed any new functions in the Gardner seat. An ingenious feature has been presented to the effect that the perforations and concavity co-operate in Gardner's
470 seat to prevent warping and curling of the material used. If this is true the same elements were combined in the Bailey chair back and performed there the same functions they performed in the Gardner seat. It may be that the Gardner seat is mechanically a better seat than any which preceded it, but his improvement is not a patentable one.

It is strenuously insisted that the popularity and success achieved by the Gardner seat beyond those of his predecessors affords cogent evidence both of the utility and patentable novelty of his invention.

The answer to this argument is that the success of his seat is probably due to a feature which is not suggested in the original patent, that is, its adaptability for use by unskilled workmen. His seats as now made
471 can be fitted without mechanical skill to a bottomless chair and are largely used to repair chairs in which the original seats have been worn out and can be so used without any special skill. They are also largely sold to chair manufacturers, because they can be easily adapted to chairs of different sizes and seats of different forms. But the chair seat described in Gardner's original patent and shown in the drawings did not practically possess this characteristic of adaptability, but was a frame seat which could only be fitted to a chair by a skilled laborer. Such a chair seat would fail to meet the peculiar want which the present chair seat supplies.

Considered as a new article of manufacture, if the complainants' chair seat has no frame and its novelty and utility consist in its adapta-
472 bility to be sold separate from the frame and to be readily applied by any person to any chair, then the reissue is for a different invention than that disclosed in the original patent.

In conclusion, in view of the former decision of this court, the complainant can only succeed upon the theory that by imparting a concave form to his chair seat he has imparted sufficient patentable novelty to his article to sustain a patent; and this when such a form of chair seat was old, the material used old, and the method of imparting the form to the material was old. This theory cannot stand.

The bill must be dismissed.

473 (Endorsed:) U. S. circuit c't so. dist. N. Y. Wm. Gardner et al. vs. Martin Herz & John K. Mayo. Opinion, Wallace, *J.* U. S. circuit court. Filed Jan. 27, 1882. Joseph M. Deuel, clerk.

474 At a stated term of the circuit court of the United States for the southern district of New York, held at the United States court rooms in the city of New York, on Friday, the tenth day of November, in the year of our Lord one thousand eight hundred and eighty-two.

Present: The Hon. Wm. J. Wallace, circuit judge.

WILLIAM GARDNER, OLIVER L. GARDNER, & Jane E. Gardner
vs.
MARTIN HERZ AND JOHN K. MAYO. } In equity.

This cause having heretofore been brought to a hearing upon the pleadings and proofs therein, and having been argued by George Gifford, esq., and Philip J. O'Reilly, esq., for the complainants, and by James P.
475 Foster, esq., for the defendants, it is now, on motion of James P. Foster, esq., for the said defendants, ordered, adjudged, and decreed, and this court, by virtue of the power and authority therein vested, doth hereby order, adjudge, determine, and decree that the complainants' bill of complaint filed, be, and the same is hereby, dismissed, with costs.

(S'g'd) WM. J. WALLACE.

Approved as to form.

J. P. FOSTER, *For Def'ts.*
GIFFORD & GIFFORD,
For Compl'ts.

(Endorsed:) U. S. circuit court, southern dist. N. Y. In equity. Wm. Gardner et als. vs. Martin Herz et al. Decree. U. S. circuit court. Filed Nov. 10, 1882. Joseph M. Deuel, clerk.

476 (Endorsed:) Foster, Wentworth & Foster, 19 Broadway, New York. U. S. circuit court. Filed Jan. 27, 1881. Joseph M. Deuel, clerk.

477 U. S. circuit court, southern district of New York.

WILLIAM GARDNER ET AL.
vs.
MARTIN HERZ ET AL.

We hereby consent that the foregoing papers shall constitute the record to be sent by the clerk of this court to the U. S. Supreme Court on the appeal to the said Supreme Court in the above-entitled cause.

New York, November 27, 1882.

GIFFORD & GIFFORD, *Compl'ts' Sol'rs.*
FOSTER, WENTWORTH & FOSTER,
Def'ts' Sol'rs.

(Endorsed:) U. S. circuit court. Filed Nov. 29, 1882. Joseph M. Deuel, clerk.

478 U. S. circuit court, southern district of New York. In equity.

WM. GARDNER AND OTHERS
vs.
MARTIN HERZ AND ANOTHER.

It is hereby stipulated and agreed that each party may remove from the files of this court the exhibits put in evidence by them and retain the same during the pendency of the appeal to the U. S. Supreme Court in this case; subject, however, to the inspection of the other party during the pendency of said appeal, and subject to their production on the hearing of said appeal.

Dated Nov. 23rd, 1882.

(S'g'd) GIFFORD & GIFFORD, *Compl'ts Sol'rs.*
FOSTER, WENTWORTH & FOSTER,
Def'ts Sol'rs.

Ordered accordingly.

(S'g'd) HOYT H. WHEELER.
NOV. 23RD, 1882.

479 (Endorsed:) U. S. C. C., S. D. N. Y. In eq. Wm. Gardner et als. vs. M. Herz et als. Consent and order as to exhibits. U. S. circuit court. Filed Nov. 23, 1882. Joseph M. Deuel, clerk.

480 Circuit court of the United States, southern district of New York.
In equity.

WILLIAM GARDNER, OLIVER L. GARDNER, and Jane E. Gardner, complainants and appellants,
vs.
MARTIN HERZ AND JOHN K. MAYO, defendants and appellees.

To the honorable the Supreme Court of the United States:

The appeal of William Gardner, Oliver L. Gardner, and Jane E. Gardner, the above-named complainants and appellants, respectfully showeth:

That on the 21st day of June, 1880, the above-named complainants and appellants filed their bill of complaint in the circuit court of the United States for the southern district of New York, against the above-
481 named defendants and appellees, to enjoin and restrain the said defendants and appellees from infringing letters patent of the United States granted to the said complainants and appellants, dated the 24th day of February, 1880, and numbered 9094, for an improvement in chair seats; and also praying for an account of profits and assessment of damages arising from said infringement.

That a subpœna issued out of said circuit court was duly served on the said defendants and appellees. That the said defendants and appellees filed their answer to said bill of complaint, to which the complainants and appellants filed a general replication.

Whereupon such proceedings were had in the cause that on the 10th day of November, 1882, a final decree was made and entered in
482 said circuit court, wherein it was adjudged and decreed that the said bill of complaint be dismissed with costs; which said judgment and decree is, as the complainants and appellants are advised, erroneous and ought to be reversed.

Wherefore these appellants appeal from the whole of said decree of said circuit court to the Supreme Court of the United States, and respectfully pray that the decree of the said circuit court, and the bill, answer, pleadings, depositions, evidence, exhibits, and proceedings in the said cause may be sent to the Supreme Court of the United States without delay, and that the said Supreme Court will proceed to hear the cause anew, and that the said decree of the circuit court and every part thereof may be reversed or such other decree made as to the said Supreme Court shall seem just.

483 WILLIAM GARDNER.
OLIVER L. GARDNER.
JANE E. GARDNER.

By their solicitors,
GIFFORD & GIFFORD.

GIFFORD & GIFFORD,
Solicitors and of Counsel for Complainants and Appellants.

(Endorsed:) U. S. C. C., S. D. N. Y. In eq. Wm. Gardner et als. v. M. Herz et al. Appeal.

I allow the within appeal, dated Nov. 22nd, 1882.
(S'g'd) HOYT H. WHEELER, *Judge.*

U. S. circuit court. Filed Nov. 23, 1882.
JOSEPH M. DEUEL, *Clerk.*

484 United States Supreme Court.

WILLIAM GARDNER AND OTHERS, APPELLANTS,
vs.
MARTIN HERZ AND JOHN K. MAYO, APPELLEES.

UNITED STATES OF AMERICA,
Southern District of New York,
State, City, and County of New York:

Philip J. O'Reilly, being duly sworn, deposes and says:

I am of lawful age, and reside in the city of New York. On the 23rd day of November, 1882, I served on the above-named appellees a copy of the appeal and allowance thereof filed in this cause with the clerk of the circuit court of the United States for the southern district of New York, by leaving said copy for the solicitors of said appellees in the office
485 of the clerk of said circuit court.

(Signed) PHILIP J. O'REILLY.

Subscribed and sworn to before me this 23d day of November, 1882.

(S'g'd) JOHN A. SHIELDS,
U. S. Commissioner, S. D. of N. Y.

(Endorsed:) U. S. C. C., S. D. N. Y. In eq. Wm. Gardner et al. vs. Martin Herz et al. Affidavit of service of appeal. U. S. circuit court. Filed Nov. 23, 1882. Joseph M. Deuel, clerk.

486 Supreme Court of the United States.

WILLIAM GARDNER, OLIVER L. GARDNER, AND Jane E. Gardner
vs.
MARTIN HERZ AND JOHN K. MAYO.

Know all men by these presents that we, George Gardner, of Sea Cliff, L. I., New York, and R. Westbrook Myers, of the city, county, and State of New York, are held and firmly bound unto Martin Herz and John K. Mayo in the sum of five hundred dollars, to be paid unto the said Martin Herz and John K. Mayo or assigns, to which payment well and truly to be made we bind ourselves and each of us, jointly and severally, and our and each of our heirs, executors, and administrators, firmly by
487 these presents. Sealed with our seals, dated this 21st day of November, 1882.

Whereas the above-named William Gardner, Oliver L. Gardner, and Jane E. Gardner hath taken an appeal to the Supreme Court of the United States to reverse the decree rendered in the above-entitled action by the circuit court of the United States for the southern district of New York.

Now, therefore, the condition of this obligation is such that if the above-named William Gardner, Oliver L. Gardner, and Jane E. Gardner shall prosecute their said appeal to effect, and answer all costs and damages if

they shall fail to make good their plea, then this obligation shall be void; otherwise to remain in full force and virtue.

GEO. GARDNER. [L. S.]
R. WESTBROOK MYERS. [L. S.]

Sealed and delivered in the presence of—
W. F. HAPGOOD.

UNITED STATES OF AMERICA,
Southern District of New York, ss:

488 UNITED STATES OF AMERICA,
Southern District of New York, ss:

George Gardner, being duly sworn, deposes and says that he is a freeholder residing at Sea Cliff, Long Island, New York, and that he is worth the sum of five hundred dollars over and above his just debts and liabilities.

(S'g'd) GEO. GARDNER.

Sworn to before me this 21st day of Nov., 1882.
[NOTARIAL SEAL.] (S'g'd) W. F. HAPGOOD,
Notary Public (102), *New York County.*

UNITED STATES OF AMERICA,
Southern District of New York,
State, City and County of New York, ss:

R. Westbrook Myers, being duly sworn, deposes and says that he is a freeholder residing in the city of New York, and that he is
489 worth the sum of five hundred dollars over and above all his just debts and liabilities.

R. WESTBROOK MYERS.

Sworn to before me this 21st day of Nov., 1882.
[NOTARIAL SEAL.] W. F. HAPGOOD,
Notary Public (102), *New York County.*

(Endorsed:) U. S. Supreme Court. Wm. Gardner et als. v. Martin Herz and John K. Mayo. Bond on appeal.

I approve of the sufficiency of the sureties to the within bond. Dated Nov. , 1882.
(S'g'd) HOYT H. WHEELER, *Judge.*

U. S. circuit court. Filed Nov. 22, 1882.
JOSEPH M. DEUEL, *Clerk.*

490 By the honorable Hoyt H. Wheeler, one of the judges of the circuit court of the United States for the southern district of New York.

To Martin Herz and John K. Mayo:

Whereas William Gardner, Oliver L. Gardner, and Jane E. Gardner hath lately appealed to the Supreme Court of the United States from a decree lately rendered in the circuit court of the United States for the

southern district of New York, made in favor of you, the said Martin Herz and John K. Mayo, and have filed the security required by law; you are therefore hereby cited to appear before the said Supreme Court at the city of Washington on the second Monday of October next, to do and receive what may appertain to justice to be done in the premises.

491 Given under my hand at the city of New York, in the second circuit, the 22nd day of November, in the year of our Lord one thousand eight hundred and eighty-two.

(S'g'd) HOYT H. WHEELER.

(Endorsed:) U. S. circuit court, southern dist., N. Y. In eq. Wm. Gardner et als. vs. M. Herz et al. Citation.

Due service of a copy of the within citation is hereby admitted.
Nov. 23, 1882.

FOSTER, WENTWORTH & FOSTER,
Sol'rs for Def'd'ts and Appellees.

U. S. circuit court. Filed Nov. 23, 1882.
JOSEPH M. DEUEL, *Clerk.*

492 UNITED STATES OF AMERICA,
Southern District of New York, ss:

I, Joseph M. Deuel, clerk of the circuit court of the United States of America for the southern district of New York, in the second circuit, do hereby certify that the foregoing pages, numbered from one to four hundred and ninety-one, inclusive, contain a true and complete transcript of the record and proceedings had in said court, in the case of William Gardner, Oliver L. Gardner, and Jane E. Gardner, complainants and appellants, against Martin Herz and John K. Mayo, defendants and appellees, as the same remain of record and on file in said office.

In testimony whereof I have caused the seal of the said court to be hereunto affixed, at the city of New York, in the southern district of New York, in the second circuit, this 29th day of November, in the year of our Lord one thousand eight hundred and eighty-two, and of the Independence of the said United States the one hundred and seventh.

[SEAL.] JOSEPH M. DEUEL, *Clerk.*

(Indorsement on cover:) No. 803. William Gardner, Oliver L. Gardner, and Jane E. Gardner, appellants, vs. Martin Herz and John K. Mayo. S. New York, C. C. U. S. Filed 5th December, 1882.

118-180

FILED
OCT 2 1883

UNITED STATES SUPREME COURT.

OCTOBER TERM, 1883.

No. 803.

WILLIAM GARDNER, OLIVER L. GARDNER AND JANE B. GARDNER,

Appellants,

vs.

MARTIN HERZ AND JOHN K. MAYO,

Appellees.

APPEAL FROM THE CIRCUIT COURT OF THE UNITED STATES FOR THE SOUTHERN DISTRICT OF NEW YORK.

ARGUMENT FOR APPELLANTS.

Filed.....

EDWARD N. DICKERSON,

For Appellants.

Evening Post Job Printing Office, N. Y.

southern district of New York, made in favor of you, the said Martin Herz and John K. Mayo, and have filed the security required by law; you are therefore hereby cited to appear before the said Supreme Court at the city of Washington on the second Monday of October next, to do and receive what may appertain to justice to be done in the premises.

491 Given under my hand at the city of New York, in the second circuit, the 22nd day of November, in the year of our Lord one thousand eight hundred and eighty-two.

(S'g'd) HOYT H. WHEELER.

(Endorsed:) U. S. circuit court, southern dist., N. Y. In eq. Wm. Gardner et als. vs. M. Herz et al. Citation.

Due service of a copy of the within citation is hereby admitted. Nov. 23, 1882.

FOSTER, WENTWORTH & FOSTER,
Sol'rs for Def'd'ts and Appellees.

U. S. circuit court. Filed Nov. 23, 1882.
JOSEPH M. DEUEL, *Clerk.*

492 UNITED STATES OF AMERICA,
Southern District of New York, ss:

I, Joseph M. Deuel, clerk of the circuit court of the United States of America for the southern district of New York, in the second circuit, do hereby certify that the foregoing pages, numbered from one to four hundred and ninety-one, inclusive, contain a true and complete transcript of the record and proceedings had in said court, in the case of William Gardner, Oliver L. Gardner, and Jane E. Gardner, complainants and appellants, against Martin Herz and John K. Mayo, defendants and appellees, as the same remain of record and on file in said office.

In testimony whereof I have caused the seal of the said court to be hereunto affixed, at the city of New York, in the southern district of New York, in the second circuit, this 29th day of November, in the year of our Lord one thousand eight hundred and eighty-two, and of the Independence of the said United States the one hundred and seventh.

[SEAL.] JOSEPH M. DEUEL, *Clerk.*

(Indorsement on cover:) No. 803. William Gardner, Oliver L. Gardner, and Jane E. Gardner, appellants, vs. Martin Herz and John K. Mayo. S. New York, C. C. U. S. Filed 5th December, 1882.

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UNITED STATES SUPREME COURT.

OCTOBER TERM, 1883.

No. 803.

WILLIAM GARDNER, OLIVER L. GARDNER AND JANE E. GARDNER,

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APPEAL FROM THE CIRCUIT COURT OF THE UNITED STATES FOR THE SOUTHERN DISTRICT OF NEW YORK.

ARGUMENT FOR APPELLANTS.

Filed.....

EDWARD N. DICKERSON,

For Appellants.

Evening Post Job Printing Office, N. Y.

U. S. Supreme Court,

OCTOBER TERM, 1883.

No. 803.

WILLIAM GARDNER, OLIVER L. GARDNER, AND JANE E. GARDNER,
Appellants,

vs.

MARTIN HERZ AND JOHN K. MAYO,
Appellees.

Appeal from the Circuit Court of the United States, for the Southern District of New York.

Brief for Appellants.

This is an appeal from the decision of the Circuit Court of the United States for the Southern District of New York, dismissing the bill of the appellants.

The questions raised by the appeal are largely questions of law; there being no very substantial dispute about the questions of fact.

The Invention.

The invention, which is the subject matter of the patent, is the perforated wooden chair seat, now very familiar to every one; and which has superseded, to a great extent, the perforated cane seats or "cane bottoms" formerly so much used. These things, as an article of manufacture, have gone into enormous use, and have been of great value to the community.

Apparently, they are composed of a *thin layer of wood*, shaped so as to suit the person, and perforated. If this were their construction they would be utterly worthless; because a thin layer of wood of any kind, in that place, would break away from its fastenings, and split under the pressure applied to it; and in order, therefore, to make this thin scale sufficiently strong and tenacious, it is made of three layers of veneering, laid one on top of the other, and glued together—the grain of each layer running at right angles to that of the layer to which it is glued—the effect of which is that pliability, lightness, ventilation, and strength, are all combined in the product.

It is not claimed that the patented chair seat is anticipated by any former patent, or use; that is to say, there is no such *thing as a chair seat, composed of laminæ of wood, glued together in the way described, moulded, or moulded and perforated*, which ever existed before the invention of the patentee. The defence is—and the decision rests upon the proposition—that in view of the state of the art, it did not involve invention to make this new and very useful article; and that, therefore, the maker of it, who gave it to the world, is not entitled to the protection of the law; because, in the opinion of the judge, the intellectual effort involved is not big enough to give him such title.

The Law and the Statute.

I am aware that in late years, and in a few instances, the courts have said that it was the province of a judge to decide, *as a matter of law*, out of his own consciousness or knowledge, that patented inventions, *new and useful*, ought not to have been patented, because in his opinion the intellectual effort involved in creating them was not sufficient. (Breckendorf *v.*

Faber, 2 Otto, 358, Justices Strong, Davis, and Bradley, dissenting.)

Upon this class of decisions I beg to submit some remarks to the consideration of this court, in the hope that upon mature consideration it may be concluded that no court has jurisdiction to so decide.

The patent law of the United States has fallen into some confusion, in consequence of the fact that, under the Statutes of 1790 and '93, there was no Commissioner of Patents, or other tribunal established by law, for the purpose of passing a judgment upon applications for patents; in consequence of which the courts assimilated the American system to the English one; and the text writers did not discriminate between the two systems as ought to have been done even under the old statutes. When the Act of 1836 was passed, however, a tribunal was established for the purpose of judging *finally* between the applicant and the public, upon every question which, under that statute, was submitted to the Commissioner, excepting only those questions which were specially reserved by the statute for the determination of the courts; and in respect to them the decision of the Commissioner is *prima facie* valid.

The 4920th section of the Revised Statutes, which is in substance the same as the Act of 1836, is in these words:

"Sec. 4920. In any action for infringement the defendant "may plead the *general issue*, and having given notice in writ- "ing to the plaintiff or his attorney, thirty days before, may "prove, on trial, any one or more of the following special "matters:

"First.—That for the purpose of deceiving the public, the "description and specification filed by the patentee in the "Patent Office, was made to contain less than the whole truth "relative to his invention or discovery, or more than is neces- "sary to produce the desired effect; or,

"Second.—That he had surreptitiously or unjustly obtained "the patent for that which was in fact invented by another, "who was using reasonable diligence in adapting and perfect- "ing the same; or,

"THIRD.—That it had been patented *or described in some "printed publication* prior to his supposed invention or discov- "ery thereof; or,

"FOURTH.—That *he was not the original and first inventor* or "discoverer of any material and substantial part of the thing "patented; or,

"FIFTH.—That it had been in *public use or on sale in this "country* for more than two years before his application for a "patent, or had been abandoned to the public."

The most obvious defense against a patent is that the patentee was not the "*original and first inventor*" of the thing patented.

Under the English system this defense was open in the courts under the general issue; but under the American system it is not so open, but must be specially pleaded at a certain time, accompanied by special notice of the names of the persons and of the facts upon which the defense rests. This very fundamental defense is not good unless formally pleaded under the statute.

The defense of want of novelty includes, of necessity, not only that which is *specifically* the same thing as the patented invention, but also that which is *substantially* the same thing, in contemplation of law. But it does not include the defense of what may be called the GENERAL DEBILITY of the patent. If Congress had intended that a plea of that kind might be offered, it would have been the subject of a special clause, as the more *obvious* defense of novelty is. Undoubtedly whenever the fact is presented to the court, *under the special notice*, that an antecedent invention is *substantially* the thing patented, though not its "exact equivalent," then such a defense comes within the statute. But when the court finds that neither the thing itself, nor any substantially equivalent of it, has preexisted, where is the authority for deciding that what is "*new and useful*," is not patentable? The only criterion established by which patentability is to be determined, is contained in the 4,886 section in these words:

"Sec. 4,886. Any person who has invented or discovered "*any new and useful art, machine, etc.* * * * *not known or* "*used by others in this country, and not patented or described in* "*any printed publication in this or any foreign country, etc.* * * "*may obtain a patent therefor.*"

But the degree of intellectual exertion involved in producing it is of no consequence. The patent is a contract between him who gives to the world that which did not exist before, and the public; and the fact that the public uses it, and wants it enough to endure a law suit in defense of the right to use it without leave of the patentee, demonstrates at once that the thing is very useful; and the fact that it has gone into use freely, demonstrates also *prima facia* that it is new; because the demand for it did not arise in consequence of the invention, but it pre-existed that invention; just as hunger pre-exists the food which, accidentally or otherwise, is presented to the hungry man. If he had had food before he would not have been hungry.

An invention generally is produced in consequence of the observation by some one that there is a want to be supplied, followed by the contrivance of something to supply that want; and when that want is supplied by that which is "*new*," all the requirements of the law are complied with. To a man of high intelligence and great attainments many inventions of great value would have been self-evident the moment a suggestion was made that such a thing was needed; whereas to the average man no such intuitive perception would have occurred, even in the presence of the greatest necessity; and, therefore, it is not possible to establish any intellectual criterion by which patentability can be measured and decided.

It is said that the average Indian on the plains can never open a gate which is latched with a common latch, not perceiving that the latch may be lifted and the gate so opened; but it seems now to us that a common latch is the most obvious of all things, and could not possibly require invention; yet the time was when it was first created, and when it was a very valuable invention.

Hayward's invention of the use of sulphur to alter the character of India rubber, and upon which Goodyear added the further improvement of heating the compound, resulted from a *dream*, in which Hayward saw some one sprinkling flowers of

sulphur into a rubber solution, and in consequence of which he did it, and produced one of the greatest inventions of our day. Here was no intellectual effort whatever, but only a dream; but the patent was good, because he gave the invention to the world, which cost him no labor whatever.

The only possible criterion, therefore, is that of the statute. Is the thing *new*, and is it *useful?* If it is *substantially* the same as something old, it is *not* new in contemplation of law; if it is not substantially the same, then it *is* new in contemplation of law, and it is the subject of a valid patent. The Commissioner of Patents having decided that it is new and useful, and patentable as such, his decision is not, under the statute, open to review, excepting under the provisions of that statute; and until there is a sixth clause added to the statute in substantially these words, namely:

"SIXTH.—That in the opinion of the judge who tries the "case the intellectual exertion involved in producing the new "and useful thing does not amount to invention"—there is no ground for the jurisdiction of any court over that question.

Obviously it would be the interest of patentees to have judges of the least possible knowledge and intellect, if *their* knowledge and brain are to afford the criterion by which patents are to be judged. To such judges all possible invention would seem difficult; whereas, to such a judge as ought to preside in courts, most inventions seem simple enough when they are presented to him; and if that impression upon his mind is the foundation for a decision that they required no invention, patents are very unsafe. I submit to this court that the statute ought to be adhered to; and that what the Commissioner of Patents has said was patentable cannot be reviewed by any court, in the absence of the notice and the testimony required by the statute as sufficient to overcome the patent so granted. *The court cannot set up a defense which the statute does not authorize the defendant to set up.*

THE STATE OF THE ART IN THIS CASE.

A great desideratum was a cheap and effective chair bottom to take the place of cane bottoms, formerly the only things of the kind resembling the present invention in general qualities;

and various inventions were made and patented for the purpose of producing that substitute, but without success or effect.

A man named Tice took a patent (Rec., p. 224), for "The em- " ployment of *perforated sheet metal* in the bottoms or seats " and backs of chairs, and other articles of furniture, for sitting " and recumbent purposes, substantially as herein described."

The thing produced was an attempt to make a better substitute for the cane chair bottom. It was worthless, and notwithstanding a great effort was made to introduce it into use, it utterly *failed, and was abandoned* (p. 24.)

A man named Bramhill (Rec., p. 226), patented "The em- " ployment of perforated, elastic, vulcanized India rubber, or " India rubber cloth, substantially as herein described, in the " bottoms and backs of chairs and other articles of furniture " for sitting and recumbent purposes."

This was good for nothing and a failure, and was abandoned.

A man named Cochran (Rec., p. 227), patented "The em- " ploying the perforated or whole *sheets of hardened or enameled* " *India rubber* or gutta percha for chair, sofa, car and carriage " seats, substantially as described;" but these were worthless and abandoned.

A man named Farmer (Rec., p. 230), patented "The employ- " ment of sheets of *rawhide* in the bottoms and backs of chairs " and other articles of furniture for sitting and recumbent pur- " poses, when perforated and embossed substantially as herein " set forth."

This also was a failure.

All these things were perforated, and were of thin material. The idea of perforation belonged to the cane bottom chair; and the lightness and thinness of the material is also suggested by that same article, and is obviously a necessity. And yet nobody had thought of making a chair bottom of veneers glued together at right angles to each other, moulded and perforated.

A man named Pratt (p. 232) patented "The employment or " use of a thin sheet, B, of wood provided with *narrow slats*, " *a, in combination with the frame of a seat* or back of a chair, or " other similar article."

This is a slatted bottom of thin material, but it is practically worthless, and was abandoned (p. 54). It did not, and could not exist as an independent *chair bottom*, because it consists of slats which form a bottom when *fastened to the chair*

frame; and therefore the patent is for a *combination of the frame and seat*, in which it differs essentially from the *chair seat* of Gardner.

Then there were chair seats or other chair bottoms into which the chair legs and chair backs were inserted, either moulded or carved in shape to suit the body, with which all of us have been familiar from our youth; and Bellows, p. 221, patented boiling or steaming these bottoms, and in that condition, moulding them into shape.

Robert Wood also patented (p. 163) strips of wood laid crosswise to each other, resembling somewhat cane bottoms, but these were worthless.

It was also well known in the arts generally that a more enduring board could be made by gluing together thin layers of wood with their grains running transversely to each other, than could be made out of a solid piece, for very obvious reasons. And this has been known for an indefinitely long time, and practiced for various purposes. Scales made in that way were patented by Belter, and suggested for furniture (p. 215 and 220); although I believe there has no practical use of that invention ever been made, but it was patented. This inventor suggested the use of this material for all sorts of purposes.

John K. Mayo, the defendant, also (p. 208) patented making up "scale-board," as he called it, composed of veneers glued together in a cylinder, and moulding it out into any kind of form, to be used for a list of purposes about half a page long; the majority of the uses being to "*cover*" many different objects with this material, and among other objects, he proposed to "*cover* mattrasses, sofas, divans, lounges, chairs and seats" with it.

This enumeration of inventions substantially includes the whole state of the art at the time when Gardner made his invention; which consists in forming a chair seat of thin laminæ of wood or veneers, glued together, with their grains crossing each other, concave on the upper side, convex on the lower side, and perforated. It is claimed in two claims (p. 206); the *first* of which includes the seat when concave and convex; and the *second* adds the perforations.

That these narrow claims are new, is not in dispute. But it is said that the thing represented by these claims does not constitute a patentable invention, in view of the state of the

art already set forth in this brief. The judge says: "It may "be that the Gardner seat is *mechanically a better seat* than "any which preceded it, but his improvement is not a patent- "able one."

When the invention was made and put into use, these defendants were manufacturing, and endeavoring to bring into use, Pratt's slatted seats, but without success. They sold a large quantity of them to Fechtman (pp. 29 and 30), but they were returned as worthless, and were admitted to be so. At that time Gardner had his seats on the market, and the defendants finding they could not sell their slatted seats began to infringe, and offered indemnity to their customers who should consent to aid them in violating the patent (p. 30, q. 12). This state of facts makes these defendants wanton infringers; and that too when one of the defendants had a *patent, now set up as an anticipation, but was not using it, or claiming to use it,* but was using another patented invention which was worthless. It certainly does not lie in their mouths to say, either that the Mayo patent was the same thing, or that the change from the old methods to the new one required no invention; for they never made that change themselves, although in great need of the product, and owning the Mayo patent for making scale boards, dated Dec. 26, 1865 (p. 209), *seven years before Gardner patent* of May 21, 1872. Even so late as 1879, the defendant, John K. Mayo, the patentee of the Mayo patent, had not found out that he was the inventor of the Gardner seat, but was selling slatted seats; and when his customers would not take them, he copied the Gardner seat, and indemnified his customers. What a commentary this fact is upon the pretence that Gardner's invention is not patentable! Whatever any judge may think of the patentability of Gardner's invention, John K. Mayo, by his acts, has proved that he knows it required invention, and that *he* did not make that invention.

Utility and Use of the Invention.

As soon as the invention was made its value was at once recognized by the trade, and it went into rapid and enormous use, because

1. It is the cheapest seat.

2. The strongest and most durable.

3. The only seat that can be applied to different chair seat frames.

4. The only seat capable of being sold separate from chair-seat frames.

5. The only seat that can be applied to chair seat frames by unskilled labor.

(See James B. Ryer, p. 16, Q. 8 to 18; De Graff, p. 20, Q. 5 to 14; Garrison, p. 48, Q. 5 to 13; Henkel, p. 77, Q. 73 to 86; Wood, p. 56, Q. 52 to 37; Arnold, pp. 106–7; Keifer, p. 108; Brown, p. 116; Chambers, p. 116; Kent, p. 117; Finckel, p. 117; Warren, p. 118; Van Warner, p. 119; Lockwood, p. 119; Holcomb, p. 119; Stevens, p. 120; Seaton, p. 120; Thian, p. 120; Mulliken, p. 121. See also the enormous sales by Gardner, pp. 160–1, amounting to from 140,000 in 1875 to 640,000 in 1880, regularly increasing. See also Sutliff, p. 112, Q. 6 to 11), showing that these seats are largely exported to foreign countries; and at home give employment to great numbers of men, who go about the country carrying with them these seats, and reseating chairs in the houses, *which cannot be done with any other chair seat known.* Also showing the recognition at the great fairs, both in this country and in Europe. At the Centennial they received the reward of the judges (p. 159).

Here is a mass of testimony, almost unparalleled in the history of inventions, of the use of any new manufacture, showing that these chair bottoms possess all the valuable qualities that constitute patentability. The trade did not find in any of the former things what they were seeking for; and the moment these things came into use they superseded every other thing; and their merit has been recognized not only in this country but in the world at large. That such evidence is sufficient to establish novelty and utility, would seem to need no argument to prove; and even if this court is of opinion that its judgment as to the amount of intellect involved in producing it is the criterion, yet I submit that its judgment should be controlled by such overwhelming testimony as that which has been adduced in this case.

The Law.

The principles of law which govern the new application of an old material to an old use, are well enough settled; although there has been some confusion in the decisions, arising from a very singular misapprehension of the case of Hotchkiss *vs.* Greenwood, 11 Howard, p. 248, which has been often supposed to have decided that it was not patentable to substitute porcelain as a door knob for metal or wood — a supposition which an erroneous syllabus has fostered. That case decided no such thing. On the contrary it admitted the patentability of such a substitution, which was a very valuable invention; just as it was a very valuable invention to substitute porcelain for bone or ivory in the manufacture of artificial teeth. The point decided in Hotchkiss *vs.* Greenwood was, that it was not patenable to fasten the shank into a knob made of porcelain by the same means and in the same manner that had been used in fastening the shank into metal or wooden knobs; and the court below submitted to the jury whether there was any difference in the two methods of fastening the shank to the knob; if not, it was a mere double use and not patentable. If it required any different process to do it, then it might be patentable; but the question never was in that case, whether it was patentable to make a door knob of porcelain as a substitute for a metallic or wooden one.

The confusion of the case is in the *double* use of the word "knob"—it sometimes being used to signify the globular handle alone, and sometimes the handle with the spindle attached to it in the usual method. The question was, whether, when the handle of clay was old, and the spindle inserted into it was old, and it was inserted in the old way, the entire thing was a new invention; and this court, agreeing with the jury, said that a metal *knob* (*i. e.*, the entire combination) was substantially the same thing as the clay *knob* (entire); but this court also said that if the question was on the clay handle itself, that would be patentable, but that it was old.

This is the decision:

"And in order to appreciate still more clearly the extent of "the novelty claimed, it is proper to add that this knob of

" potter's clay is not new, and therefore constitues no part of " the discovery. If it was, a very different question would " arise, *as it might very well be urged, and successfully urged, that* " *a knob of a new composition of matter, to which this old contri-* " *vance had been applied, and which resulted in a new and useful* " *article was the proper subject of a patent.*

" The novely would consist in the new composition made " practically useful for the purpsses of life, by the means and " contrivances mentioned. IT WOULD BE A NEW MANUFACTURE; " AND NONE LESS SO WITHIN THE MEANING OF THE PATENT LAW, " BECAUSE THE MEANS EMPLOYED TO ADAPT THE NEW COMPTOSIION " TO THE USEFUL PURPOSE WAS OLD, OR WELL KNOWN.

"But in the case before us, the *knob* was not new, nor " the metallic shank and spindle, nor the dovetail form of " the cavity in the knob, nor the means by which the metallic " shank is securely fastened therein. All these were well " known and in common use; and the only thing new is the " substitution of a knob of a different material from that here- " tofore used in connection with this arrangement." * *

* * * * * * * * *

" The improvement consists in the superiority of the materal, " *and which is not new*, over that previously employed in making " the *knob*." In the last paragraph the word " knob " is used to signify the entire thing ready for use on a door: in the former ones the word " knob " signifies the *handle* only—hence the confusion.

In the case of Hicks *vs.* Kelsey, 18 Wallace, 670, this court says: " The use of one material instead of another, in con- " structing a known machine is, in most cases, so obviously a " matter of *mere mechanical judgment*, and not of invention, that " it cannot be called an invention, unless some new and useful " result, AN INCREASE OF EFFICIENCY, OR A DECIDED SAVING IN " THE OPERATION, IS CLEARLY ATTAINED." Smith *vs.* Goodyear, 3 Otto, 496, also states the law correctly; which is, that where a decidedly improved result follows from the substitution of one material for another, that constitutes patentability; which amounts to saying that the two things are *substantially different*, when produced, although they are analogous. Thus, an artificial tooth made of porcelain is not different in the function it performs from an artificial tooth made of bone or ivory, but it is vastly better, and was a very great

invention; and it is not by any means a self-evident proposition that one might be substituted for the other. Great cheapness is one of the tests of distinction between two materials, and the fact that for many years no one has seen that another material might be substituted with an improved result and at a reduced cost, shows that it was not at all self-evident. Each case stands by itself, however, and must be judged by its own results. In this case it is not a mere substitution of one material for another. It is applying to the old material the process of moulding to shape, and cutting to form, which constitutes the "new manufacture."

The Patent and its Reissues.

Gardner's original patent, p. 200, claimed, "as a new article "of manufacture, a chair seat constructed of veneers of wood, "with the grain running crosswise of each other and glued "together, all substantially as set forth and for the purposes "specified."

The thing shown and described in the patent, was the same that always has been shown in the subsequent reissues; that is, a *chair seat* made of veneers, concave on the upper surface, convex on the lower, and perforated; and both those qualities are suggested in the specification and exhibited in the drawing. This patent was reissued July 4, 1876 (p. 202), with six claims; and afterwards, and on the 24th of February, 1880, it was again reissued (p. 206) into its present form. The last reissue is *narrower than either of the former patents.* The claims are in these words:

"1. As a new article of manufacture, a chair seat, formed of "laminæ of wood with the grain crossing, glued together, and "concave on the upper surface and convex on the lower surface, "adapted to a chair frame substantially as set forth.

"2. A chair seat made of laminæ of wood glued together, "with the grains in one layer crossing those of the next, con-"cave on the upper surface, convex on the lower surface, and "perforated, as a new article of manufacture, substantially as "set forth."

The first of these claims, which is not in controversy, differs from the second one in the circumstance that it does not include perforations in the new article of manufacture, and does

contain the expression "adapted to a chair frame." The second claim is the same as the original claim, except that it is limited and narrowed by the two conditions of concavity and perforation; and practically those are the two conditions which make the thing valuable, but those limitations were not imposed upon *the claim* in the original patent. The reissue, therefore, is not obnoxious to any criticism that it is for an *enlargement* of the invention, or that it contains any thing which is not in the original patent, or that it was unreasonably delayed.

When this reissue was granted, it was the subject of an investigation in the Patent Office, and of a decison by the Board of Examiners. In so far as that decision touches the question of patentability, notwithstanding the argument founded upon *general debility*, I submit to the court that it is conclusive, for the reasons hereinbefore stated; but I now refer to it especially to show the view which is taken of this question by experts, whose only object should be to administer their office righteously, and whose names are well known to this court as of men of integrity and character (p. 156). The Examiners-in-Chief in that opinion discriminated very clearly between the old and the new; and also pointed out that the decision of Judge Blatchford, upon the second reissue, has no effect whatever upon the last reissue. I commend it to the consideration of the court as a decision worthy of being favorably considered, and of being accepted as governing this case; both because of its inherent force and because of its authority.

There is nothing presented in this case which is not met and covered by that decision. The Patent Office did not grant the patent unadvisedly, nor as a favor, nor as a doubtful question; but carefully and advisedly; and that decision ought not to be set aside, unless some better evidence is offered than was before the office, *which is not claimed to be the case here.*

The Errors.

Judge Wallace took one view of the case which does not seem to be justified by any evidence, nor by the patent; and this view touches one very important aspect of the case. One of the advantages of this particular chair seat is that it can be

adapted readily, and without any particular skill, to any bottomless chair. The reason why it can, is that it is easily cut with a knife to suit the configuration of any chair frame, to which it can be then attached with nails.

That quality is inherent in the material and structure of the chair seat, and it did not exist in any of the former chair seats, which were *practically useful.* A sheet of cane bottom material could easily be cut to the desired shape, but it required a skilled workman to weave it into the holes, and secure it to a chair frame. Iron chair seats, which were useless, could not be cut and fitted by an unskilled person; which was also true in respect to hard rubber, even if it had been practically useful. Of course, materials that could be cut with shears, such as India rubber, cloth, or hide, could be easily fitted; but they were not useful, and no one, I imagine, would say that they anticipate this invention.

The specification does not say that this material is easily cut to suit any chair bottom, but that is self-evident; and it was as well known to the inventor as it would be to any one who took up a chair bottom made of this material, and that quality did not need to be specifically described. As soon as these chair bottoms were manufactured, they were used in the manner in which their capacity enables them to be used; and that capacity is the subject of proof, as illustrating one of the advantages that this thing has over other chair bottoms which are in practical use.

On this point Judge Wallace says:

"It is strenuously insisted that the popularity and success "achieved by the Gardner seat, beyond those of his predeces- "sors, affords cogent evidence both of the utility and patent- "able novelty of this invention.

"The answer to this argument is, that the success of his seat "is probably due to the feature which is not *suggested in the* "*original patent*, that is, its adaptability for use by unskilled "workmen. His seats, as now made, can be fitted without "mechanical skill to a bottomless chair, and are largely used "to repair chairs in which the original seats have been worn "out, and can be so used without any special skill. They are "also largely sold to chair manufacturers, because they can be "easily adapted to chairs of different sizes and seats of differ- "ent forms.

"But the chair seat described in Gardner's original patent, "and shown in the drawings, *did not practically possess this* "*characteristic of adaptability*, but was a frame seat, which "could only be fitted to a chair by a skilled laborer. Such a "chair seat would fail to meet the peculiar want which the "present chair seat supplies. Considered as a new article of "manufacture, if the complainant's chair seat has no frame, "and its novelty and utility consists in its adaptability to be "sold separate from the frame, and to be readily applied by "any person to any chair, then the reissues is for a different "invention than that disclosed in the original patent."

This is a mistake both in law and in fact. The drawing of the patent shows a *chair seat secured to a chair frame*, which has a recess for the insertion of the seat, just as any cane-bottom chair frame is made; and that is the most perfect form in which the thing can be presented or used. The "*seat*" itself needs to be cut to fit this recess, if the chair frame has a recess on it; if it has not, then the seat has to be cut to suit the general shape of the frame. But in either case it is very easily done by a person possessing no great degree of skill, because the material can be readily trimmed with a knife to suit any desired form of frame. *The invention was not the chair frame, with a seat fixed on it*, but it was the "*chair seat*" independently of the frame.

The original patent says: "This invention relates to *chair* "*seats*, and it consists in constructing a *seat out of veneers of* "*wood*, with the grain running across each other and glued "together." What the seat is, is described in the next paragraph, and it has no relation whatever to the *frame*. The inventor says "*seats* thus made do not cost as much as those "that are made of cane, and are better by far in point of dura-"bility," thus showing that his invention was of a "seat," and not of a *seat and a frame* in combination; the seat, of course, being capable of being applied to a frame, but being, *as an invention*, entirely independent of the frame. The patent then says: "*The veneers rest upon the shoulders F* of a frame *F*, which "surrounds them," which is the only reference in the patent to the chair frame, and which was a necessary reference, or at least a very expedient one, in order to show how the chair seat was applied to a chair frame. Now, I submit to the court that this original patent is not a patent for the *combination* of

a chair seat and a chair frame, but simply for a "*chair seat*" capable of being applied to a chair frame. If that is so, then the criticism of the court has no foundation, and that is a pure question of law—*i. e.*, what does the specification describe and claim—a seat, or a seat and a frame in combination?

The chair frame shown here is only one of an infinite number of varieties of chair frames, upon which chair seats are fixed; and it would be obviously a very unjust limitation of this original patent to say that it was only applicable to the precise sort of chair frame shown in this patent, which must be the construction of this original patent, if his Honor Judge Wallace is right in his criticism.

Although the construction of this patent is a question of law, yet the understanding by persons skilled in the art of its description necessarily must be its true construction; and if there be any doubt about its meaning, their understanding of it should control that doubt. The function of the court is to say *what the description means to a person skilled in the art.* In this case the defendants put an expert upon the stand (Hyde), and he testified to what he understood the invention described in the original patent to be (Q. 4, p. 176), and he speaks the understanding of his employers, who are persons skilled in the art.

A. "I understand the invention to *be a chair seat made of* "*wood veneers, glued together, with the grain of each scale board* "*or veneer crossing the grain of the veneer adjacent to it.* The "inventor adds, in his description, that these seats may be "left solid or may be perforated, but I do not understand the "addition of the perforations to be one of the elements of the "invention claimed in that patent."

So much for his understanding of the original specification. It did not seem to him to be the description of a *chair seat and a chair frame combined*, but only of the seat itself made of laminae.

He was then asked (p. 179) to point out any differences between the reissue now in suit and the original patent or first reissue, and he says:

"The differences consist in the elements which the inventor "disclaims as part of his invention. The inventor returns to "the claim of *a chair seat only as exhibited in the original* "*patent.* He disclaims the invention of the arrangement and

" use of wood veneers, and also disclaims the invention of the " use of perforations."

He again does not discover that the reissued patent differs from the original in respect to the distinction between a chair seat, and a chair seat *in combination with the frame*, nor that in either patent the chair frame forms any part of the thing patented.

And this witness was extremely critical, because he attempted to draw a distinction between the reissue and the original, founded upon the circumstance that in the original patent the convexity of the under side of the seat was not mentioned in connection with the concavity of the upper side which it is in the reissue. Reference, however, to the drawing in the original patent shows the convexity and concavity together, and, therefore, the description of the fact is lawfully incorporated into the reissue.

It is obvious, therefore, that the defendants and their skilled witnesses did not see, in the description of the original patent, any such matter as Judge Wallace discovers in it, and upon which he bases the most important part of his decision.

The testimony of this witness, Hyde, at large shows what I have stated, and what the court would discover from looking at the different anticipations, that the chair seat of the patent is not anticipated by any former chair seat; but that if the patent is to be defeated at all it must be upon the ground that the different elements constituting the patented chair seat are to be found scattered abroad among the variety of other inventions, but never before combined in one seat, and that there is such a general debility about the patent in consequence of this fact that it cannot be upheld.

The reissue in question, in its description, does not differ from the original, although it is a little fuller, but it does not contain anything new. It says (p. 206) :

" My *chair seat* is a new article, possessing great strength " and durability. It is very light and cheap. It forms an " agreeable seat. It is not hot in summer nor cold in winter. " The perforations give the wood a handsome appearance, and " afford the required ventilation ; and the seat is adapted to be " secured to any chair frame, as it is easily cut and and fitted " to the same; and the cost of those seats is less than those " made of cane, and they are much more durable."

This is not new matter, and does not constitute the reissue a different invention from the original. It was always true that this chair seat was easily fitted to any chair frame, and the statement of that fact in the reissue does not constitute a new subject matter or a new invention. It is the simple statement of a self-evident quality, which inheres in the newly-invented and patented chair seat. It is, I submit, an error in the decision, to say that the original patent did not describe a chair seat readily fitted to the frame, or that the reissue in this respect contains new matter; which error, when corrected, leaves the decision without any other material foundation.

The court also erred in citing and relying upon a decision made by his Honor Judge Blatchford, on a motion for preliminary injunction founded upon the first reissue of the Gardner patent. That decision is to be found in the 16th Blatchford, p. 303.

The infringement in that case is thus stated by the court (p. 305):

"The defendants make seat-bottoms constructed of two or "more veneers or thin layers of wood, with the grain of the "one layer crossing that of the other, and the whole secured "together with an adhesive substance; and there are *slots or* "*slits cut through the seat, as long as the length of the seat-bottom* "*from front to rear, leaving longitudinal holes of that length, and* "*thus forming ribs or slats, the effect of which is to make the* "*seat-bottom yielding and elastic.*"

It was, in substance, a slatted chair bottom, composed of scale-board made of thin veneers in a well-known manner. The defendants were the same as in this case; and they were then making slatted seats out of veneers which were practically of little value, and which have entirely disappeared from the market. The first and third claims of that reissue cover any chair bottom made of thin veneers (Rec., p. 203).

The use of veneers for chair seats was suggested in Mayo's reissued patent of 1868 by the addition of Figure 2 (p. 212), which is a rocking-chair, and by the insertion in the specification of this statement (p. 212): "The invention is also appli- "cable to the construction of chairs, tables, desks, chess- "boards, bedsteads, or parts thereof, cornices, brackets, book

" shelves and cases, panels, wardrobes, screens, wall-coverings, " Venetian blinds, picture and looking-glass frames, window " shades or curtains, carpets, carpet coverings or linings, " mats, floor-cloths, sacking bottoms, couches, cots and other " articles of similar nature too numerous to mention" (Rec., p. 211).

In his original specification (p. 208) his allusion to chairs was for the "*covering* of beds, sofas and sofa bedsteads, " divans, lounges, chairs and settees."

His idea then evidently was to use this material not as a chair seat, but as a covering for chairs and of many other objects, among which were mattrasses.

He evidently had no idea of using it as a chair seat and back, even in the manner shown in Figure 2 in his reissued patent; which is commented upon by the Examiners-in-Chief (p. 157), and where the illegality of the reissue is pointed out. The Examiners also point out—what is obvious—that the figures Fig. 1 and Fig. 2 of Mayo's reissue show that the whole frame is "*covered*" with this thin material as a veneer, thus showing what his idea of its application was in his original patent, where he used the expression "*covering*."

If the scale-board were removed from the chair frame shown in the drawing of the Mayo reissue, it would be simply a flexible plane sheet of that material, *having no form whatever*, and as fit for any other purpose where a plane sheet could be used, as it is to cover that chair frame. Its production is of no greater force than the production of a sheet of scale-board, with the suggestion that it might be applied to cover chairs. What Gardner did was to mould similar materal to the *proper form* for a *chair seat*, to perforate it, and cut it into sizes suitable for chair seats; whereby he produced a new *article of manufacture*, namely, a *chair seat*, as distinguished *from a sheet of flexible material*, capable of being used to cover the backs and bottoms of rocking chairs, with a plane surfaced covering. The thing shown in that drawing is neither a chair seat such as Gardner patented, nor can it be made into one by cutting it.

Judge Blatchford decided, very properly, that "what is " claimed in the first claim of the Gardner reissued patent " is clearly described in the two Mayo patents, both of which

"were issued prior to the original Gardner patent" (16 Blatchford, 307). This disposed of the first claim of the reissue. His Honor also disposed of the claim for perforations by reference to the Tice *iron chair seat* and the Cochran India rubber chair seat, and said: "In view of the prior perforated "seat there was no patentable novelty in perforating a "wooden bottom."

The sixth claim of that reissue, however, was in these words (p. 203):

"6. As a new article of manufacture, a seat bottom construc-"ted of two or more veneers or thin layers of wood, the grain "of the one layer crossing that of the other, and secured to-"gether by an adhesive substance, said bottom thus formed "having a curved or concave configuration on its upper side "substantially as set forth."

That claim was not in issue before Judge Blatchford, and he expressly withheld any opinion on that subject, saying that: "No claim is made that the defendants have infringed the "sixth claim of the Gardner reissue. As to the first five "claims there is nothing new or patentable in them in view of "the above references."

That was a motion for a preliminary injunction, and nothing appeared before the court except the Tice and Cochran patents, which upon their face presented a *prima facie* practical invention. There was no evidence at that time that these two chair bottoms—the one of iron the other of India rubber—were practically worthless and failures; and, therefore, the court was not called upon to make any decision upon that state of facts. What the court did say, was, that in view of the preforations in the iron and India rubber seats, it was not patentable to perforate a laminated seat, which, as a general proposition, is true; but it will not be true if the fact is that the patented perforated seats were a failure and worthless, upon well settled principles of law, of which Whitely *vs.* Swain, 7 Wallace, p. 187, is a good example. In that case this court decided, in respect to an apparatus which has been put into some use, but which was not permanently successful, and

which afterwards had been perfected by another, that the man who perfected it and gave it to the public was the *true inventor*.

But the decision of Judge Blatchford on that preliminary motion is entirely irrelevant to this case, and it was an error in Judge Wallace to assume it as a binding adjudication. The facts were not before Judge Blatchford which are now in this case; and even if they were, the invention involved in the claims decided upon is not the invention now in issue; and Judge Blatchford very clearly discriminated between those claims upon which he had decided, and the sixth claim of the first reissue, which does involve another condition, namely, the configuration of the seat, not found in the Mayo patent.

Judge Blatchford righly *assumed* the Tice and Cochran patents to describe practical things; but now they are proved to have been failures of no value whatever.

I refer again to the decision of the Examiners-in-Chief in the Patent Office (p. 156), who gave to the decision of Judge Blatchford its exact value and importance in respect to the reissue now in question. Their opinion I commened to the court for its logical accuracy.

If the question had been submitted to Judge Blatchford whether that entire chair seat, perforated and moulded, as a new article of manufacture, was patentable, in view of the preceeding state of the art, I have no doubt he would have decided it to be so; and I feel great confidence in submitting it to his decision now, in view of the testimony in this case.

Judge Wallace felt himself concluded by what had been decided by Judge Blatchford, when Judge Blatchford's decision ought not to have borne that construction; and then, by a process of piece-meal analysis, he concluded that the addition of moulding the seat to the desired form of the body, was not *of itself* a patentable invention; and that, therefore, the entire product of combining all those qualities, was not patentable. It may be entirely true, that if an inventor who has brought together into one new manufacture a number of old elements, and for the first time combined them together, producing a new *article of manufacture*, and has thereby produced a patentable subject, *had only added one of those elements* to a pre-existing combination of all the rest, he would not have made a patent-

able invention; but the distinction is very plain, because the degree of utility which has resulted from what he has done in the two supposed cases would be entirely different; and utility is one of the criteria of invention. None of the old things was a *chair seat, capable of being used as this is;* and the failure to make such a thing, when attempted, proves the invention to be patentable, when successfully made.

If two things differ only in form and not in substance, that difference is not to be ranked with a difference in which both form and substance are changed; and many patents have been upheld for a *mere change of form*, when that form carries with it a substantial result, not to be found in the former shape.

Resume.

I.—The court erred in deciding that the chair seat of the original patent was not an independent seat, but that it included the frame upon which, or to which, it is attached.

II.—The court erred in deciding that the question of the patentability of the claims in the present reissue was to be affected by the decision of Judge Blatchford on the motion for preliminary injunction, founded upon the first reissue of this patent.

III.—The court erred in deciding that the new article of manufacture, specified and claimed in the present reissue, which is possessed of great practical value and utility, is not patentable, in view of a number of other attempts to make a valuable and useful chair seat which have failed, *some* of which contained *some* of the elements contained in the patented chair seat, *but none of which contained them all.*

The judgment should be reversed, and a decree for the appellants ordered.

Edw. N. Dickerson,
Counsel for Appellants.

118-180

FILED
JAN 25 1886
JAMES H. McKENNEY,
CLERK.

UNITED STATES SUPREME COURT.

No. 177.

WILLIAM GARDNER, OLIVER L. GARDNER and JANE E. GARDNER,

Appellants,

vs.

MARTIN HERZ and JOHN K. MAYO,

Appellees.

APPEAL FROM THE CIRCUIT COURT OF THE UNITED STATES FOR THE SOUTHERN DISTRICT OF NEW YORK.

ARGUMENT FOR APPELLEES.

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U. S. Supreme Court,

OCTOBER TERM, 1885.

No. 177.

WILLIAM GARDNER, OLIVER L. GARDNER and JANE E. GARDNER,
Appellants,

AGAINST

MARTIN HERZ and JOHN K. MAYO,
Appellees.

APPEAL FROM CIRCUIT COURT OF THE UNITED STATES FOR THE SOUTHERN DISTRICT OF NEW YORK.

Appellees' Brief.

This is an appeal from the decision of U. S. Circuit Court for the Southern District of New York, dismissing the bill of complaint on several grounds.

The defendant Mayo has died since this suit was brought.

The statement of the case as heretofore presented in the Court below by the appellants, and as it will presumably be presented by them in this Court, differs so materially from the case as presented and argued on behalf of defendants, that it is deemed important and material that the defendants make their statement of the case to this Court as it is to be read from the testimony herein, and upon which the decision of the Court below can be shown to stand in substance or detail.

FIRST PART.

Statement of the Case.

PRELIMINARY FACTS.

This suit is brought upon a reissued patent to appellants, No 9094, dated February 24th, 1880, for a chair seat. This is the second time this patent has been reissued. The first reissue was dated July 4th, 1876, No. 7203, and this first reissue was before the Court in the spring of 1879. Of course, it is pretended that the reissues and the original patent are all for the same invention, but we contend they are not.

The Court below has passed upon the merits of the first Gardner Reissue No. 7203, in an opinion filed in the case of 1879 (May 9th, 1879).

That prior suit of 1879 was between the same identical parties as now, and the appellee, Herz, now again justifies his acts under the same Mayo patents as were presented to the Court at that time.

Defendants' Exhibits Mayo Original and Mayo Reissue.

The alleged inventor of the chair seat in dispute is George Gardner. He has parted with all his interest to the appellants, and his statements are presumed to be unbiased.

We do not pretend to deny that great sales have been made of some kind of seats, either for chairs or settees, or else backs for chairs or benches or long seats, such as are in the Elevated Railroad cars in New York City; and all are claimed to be patented under this patent now in dispute.

But these great sales have not been due to the inventive genius of George Gardner, but clearly to the fact that the trade generally revived in everything, and this seat being new to the trade, and sales of all kinds of chairs increasing, of course these seats have sold largely. This revival of the trade and increase of sales has been within the past few years.

The first party to sell this seat failed under its weight in 1873 (Record, p. 76).

This was the Gardner Manfg. Co., and it failed with liabilities for $70,000 (Record, pp. 83 and 84).

Another company, the Clarksville Co., also failed while selling this wonderful Gardner seat (Record, pp. 82 and 83).

And this company sold these seats exclusively, even abandoning cane (Record, p. 83).

Then the inventor went to work at these seats himself (from 1874 to 1876) and sold out to the appellants (Record, pp. 84 and 85.)

So that we must conclude, up to 1876, no great sales of these seats had been made, but when the hard times were over and anything would sell, then these seats began to sell; and such is in reality the fact and the history of these seats.

REVIEW OF APPELLANTS' CASE.

Gardner Seat as Substitute for Cane.

A large mass of evidence has been introduced to show that the Gardner seats are a substitute for cane. We do not consider this as very important, as they may be substituted for a thousand things, and yet not have any invention in them. At all events, the fact cannot be overlooked, that to-day a larger variety of seats is made from every possible material, and sold, than ever before, the materials including cane, iron, leather, wood and steel strips or bands, leather board, paper, &c., &c., and are to be found in almost every store. It is but natural these Gardner seats take the place of some seat that otherwise would be used if the Gardner seat was not in the market, and that might be said of every other seat used; so that in fact the Gardner seat is no more a substitute than any other seat which happens to be used, where the user would have otherwise used other materials.

The appellants show in these respects:

1st. The Gardner seat was the first of its kind in the market. (Record, p. 32.)

2d. The demand for the Gardner seat has increased, (*Ibid*), and sales are large (*Ibid*, pages 90, 301, 303).

3d. The saving in cost of seating a chair by using the Gardner seat (*Ibid*, pages 33, 36, 37, 90 and 197).

4th. The scarcity of cane workers at times led to using Gardner seats (*Ibid*, pages 68, 69).

5th. The Gardner seat is a substitute for cane seats (*Ibid*, pages 37, 73, 90, 91, 103, 104, 117, 142 and 189).

The affidavits from Washington on behalf of appellants prove nothing, for although they contain orders for chair seats, yet, in all of them the order is simply for "perforated seats," (Record, page

164) or "perforated wood seats" (Record, pages 166, 167, 168, 173, 174 and 176).

The proofs only point to the fact that if Gardner did anything at all, he brought into the market an article new to the market, but which did not contain an invention.

The whole truth, as to the substitution of the Gardner seat for cane, was told by George Chipman, who was one of appellants' fairest witnesses, and the best informed as to cane seated chairs and cane work generally. His firm makes and sells annually twelve hundred dozen cane seated chairs (Record, page 180), and it has, during eight years' experience (Record, page 182), only happened twice, that any difficulty was experienced in doing all the cane work necessary or required, (Record, page 181), and it has been his experience, that the sales of cane seated chairs are increasing, and likewise cane workers (Record, page 182).

More than that, cane work and cane seated chairs are preferred among the trade to these wooden seats (Record, page 182), and this bother and trouble to get cane workers is only what happens in every class of trade at times (Record, page 183), and no such imposibility existed as to doing cane work, that cane seated chairs could not be furnished as required (page 183).

Besides all these facts, he is a practical cane worker, and testifies that *a cane-seated chair will wear as long as these Gardner seats* (Record, page 183), and the cane seat is far more comfortable.

As for substitution of the Gardner wooden seat for the cane seat, this witness, who, in fact, was the only one examined by appellants really qualified to speak on the subject, says his trade would decrease if he had to use the Gardner seat as a substitute for cane seats (Record, page 183), so that, in fact, there is no theory of substitution of the Gardner seat for cane seats, except in the sense Mr. Chipman states, to wit, in answer to cross-question 44 (Record, page 184): "It is a substitute, and occupies a place separate; that is my experience; we use them in that way;" and this is the proper and only construction of the appellants' theory of substituting their seats for cane seats; as an absolute and unqualified substitute it is an impossibility, but to use sometimes, and in some cases, it can be done. But in practice and fact the Gardner seats are not used for fine chairs, but rather for a cheap class of chairs.

Neither the appellants' counsel on direct, nor appellees' counsel on cross-examination could make this witness say that the Gardner

seat was a substitute for cane seats, and, as we maintain, *because it is not so in fact.*

6th. Appellants seek to show that the Gardner seat was the first that was made and sold separate from a chair frame (Rec., pages 33, 34, 40, 142).

This is, however, an untenable position, as the appellees' Exhibit English Patent to Botturi, as well as Tice, Farmer, Cochran, Bramhill, Bellows and Mayo reissue all show such facts, in relation to their chair seats, long prior to Gardner's invention or patent, and prior to 1871.

FACTS SHOWN BY APPELLANTS' WITNESSES IN FAVOR OF APPELLEES.

1st. Metal seats were perforated long prior to Gardner seats (Rec., pp. 40, 41). Even as long ago as twelve to fifteen years (*Ibid.*, pp. 41 and 42).

2d. Chair seats were made and sold separate from chair-seat frames twenty-five years ago, and have been ever since (Record, pages 50 and 51).

3d. The use of three veneers, glued together with the grains crossing, was known to Gardner twenty-five years ago; and it was known to him that such material would not split and was durable (Rec., p. 79).

Mr. Gardner even knew the use of cauls, ever since 1855, for the purpose of pressing concave forms in wood or veneers (*Ibid*, p. 80).

4th. The convex form of the Gardner seat on its underside is useless and immaterial, and only a natural consequence of pressing the concavity into the seat (Rec., p. 80).

This is admitted by the inventor himself, and he agrees with our expert, Mr. Hyde, in regard to this convexity (Record, p. 338).

NO INFRINGEMENT PROVEN.

The appellants are bound to show, by their testimony, a strong, clear and undoubted case of infringement.

They cannot assume anything as facts and argue upon an assumption.

The appellee is not to disprove the allegation of infringement before it is presented, nor is he to show he does not come within any possible construction of the patent. This is all affirmative duty resting upon the appellants.

The appellants have signally failed according to their own witnesses to show the infringment.

There is only one chair seat in evidence which is alleged to infringe appellants' reissue 9,094, which was bought from appellees, and marked "Complainants' Exhibit Defendants' chair seat" (Record, page 25).

This single chair seat seems to have been looked at by Mr. Serrell, appellants' expert, but he did not in any way test it or subject it to any critical examination or test.

Of this chair seat he says, distinctly what he finds therein, to wit:

> "I find that the said chair seat is formed of *laminae of wood*, "with the grain crossing, *glued together* and adapted to a "chair frame, hence the said exhibit corresponds exactly with "the subject of the first claim in the said Reissue Letters "Patent."
>
> And Mr. Serrell further states as a result of his examination: "The said exhibit is a chair seat made of laminae of wood, "glued together with the grains in one layer crossing those of "the next, concave on the upper surface, convex on the lower "surface and perforated, and hence corresponds exactly with "the subject matter of the second claim in said complainants' "reissue letters patent" (Record, page 30).

This is all the testimony there is in the whole case relating to the alleged infringing chair seats.

The Court will observe that Mr. Serrell has done nothing but cite verbatim the claims of the reissue No. 9094 sued on.

Mr. Serrell assumed all the facts; he did not state any, nor did he point out or describe a single element in the alleged infringing chair seat.

Again, the exhibit Mr. Serrell examined was as he says, "glued together;" he repeats this twice so as to be emphatic.

Under such circumstances, it was not in the nature of things to see or know whether there was a middle layer or whether it was one continuous whole sheet of veneer. No possible outside test or

inspection could discover whether it was wood or rubber, or gutta percha or sheet metal or what. Nor could Mr. Serrell say that the grain of one layer crossed that of the next, for the simple reason that he could not and did not see the middle layer.

As the evidence stands there is no proof, no matter how far the imagination may go. There is not a single word of testimony with regard to there being three layers of veneers in the alleged infringing seats.

As to perforations and the concavity, they are apparent, but as to the middle layer, if there is one, there is no testimony.

These are very essential facts, and they are so material that there is no infringement of the appellants' patent unless they are shown to exist in each and every chair seat.

It is too late to attempt any proof of these facts now, because we took our testimony, solely to attack the patent and its validity as the *prima facie* case stood, and with the testimony of Mr. Serrell as he had given it.

To show how essential it is that these facts should be proven, we refer to Mr. Kittle's testimony, an expert on behalf of appellants, to show that each layer of the Gardner seat must be as large as the seat itself, not small pieces nor layers of veneer smaller than the seat itself, and there must be three such layers (Record, pp. 249 to 252).

No outside test or inspection could reveal this, and Mr. Kittle admits it fairly (Record, p. 252).

This bill was therefore properly dismissed for want of proof of infringement.

Infringement is denied in the answer (Record, p. 16).

THE APPELLEES' DEFENSES.

Aside from those already pointed out, and aside from the failure of appellants to make out a case against us, we have several defences upon the merits of the alleged invention.

1st.

We justify our Manufacture of Chair Seats under the Mayo Patents.

The original was granted to John K. Mayo (now deceased), one

of the original defendants herein, dated Dec. 26, 1865, No. 51,735; this was reissued in eight divisions and No. 3089, dated August 18, 1868, relates to chair seats and backs.

We have put both these patents in evidence (Record, 386 and 391).

The elements of Gardner's seats are all, except the perforations, in the Mayo patent.

The same material as Gardner used is clearly shown and described in Mayo's Patents, and our view of this is sustained in the opinion of the Circuit Court in the former suit already referred to, where it distinctly, in speaking of the two patents to Mayo and Gardner's first reissue, says:

> "What is claimed in the first claim of the Gardner reissued " patent, is clearly described in the two Mayo patents, both of " which were issued prior to the original Gardner patent."
>
> "The original Gardner Patent claimed, 'As a new article of " ' manufacture, a chair seat constructed of veneers of wood, " ' with the grain running crosswise of each other, and glued " ' together, all substantially as set forth, and for the purpose " ' specified.' "
>
> "On what ground the patent office granted the claim of the " original Gardner patent, or the first claim of the reissued " Gardner patent, in view of the original and reissued Mayo " patent, it is impossible to conjecture."
>
> "The only conclusion can be that the Mayo patents were " twice overlooked" (Opinion of the Circuit Court, Record, pp. 368 and 369.)

These materials then used by Gardner and Mayo were the same, whatever they may be, for the reason that the claim of the original Gardner patent, just cited, speaks of "veneers of wood, with the grain running crosswise of each other and glued together;" this is the material, and the same material as Mayo described.

There cannot be, then, any doubt on this point.

As a possible means of convincing the Court that there was error in the view taken by the Circuit Court in 1879 about the Mayo patent, the appellants now seek to make out that the Mayo material is something very different from Gardner's. We do not, however, feel called upon to answer them in detail, as the proposition seems too unfounded in fact to be dwelt upon, and this is *res*

adjudicata, as shown by the above-cited opinion of the Circuit Court (Record, pp. 139, 253 to 258).

The second element of concavity and convexity to the chair seat, just as Gardner makes his, and just as described and claimed in the reissue No. 9094, sued on, is plainly and explicitly described in the Mayo reissue, and this is admitted by the appellants' witness and expert, Kittle.

Mayo says in the reissue No. 3089:

> "By adopting the well-known process of wet and dry heating
> "in course of manufacture, the several scales of wood may be
> "brought to such a state of pliability as to assume any de-
> "sired form by compression in a matrix or upon formers."
> (Record, page 392.)

The appellants' expert, Kittle, testified these words would convey the meaning and point out the means of producing the concave-convex form in the seat (Record, pages 246 and 247).

So that it is clear that, before George Gardner made his chair seat, Mayo had anticipated him in these two elements, clearly, and in terms, and in public printed documents.

Besides this, Mayo's material had all the other elements of adaptability and pliability and known usefulness to a chair seat.

The remaining element of perforations was old and shown in several patents prior to Gardner, to wit, the patent to Isaac P. Tice, June 27, 1865 (Record, page 414).

Also in the patent to J. A. Cochran, May 22, 1866 (Record, page 424).

Of these patents, and of the element of perforations in the Gardner chair seat, the Court said:

> "In view of the prior perforated seats, there was no patent-
> "able novelty in perforating a wooden bottom" (Record, page 369).

And this was said even in view of the fact that the prior perforated seats were sheet material, India rubber and gutta percha.

Great stress is laid upon the Gardner seat giving strength to the chair, but it is at the same time admitted that the Mayo seat will do this equally as well (Record, pages 95, 96 and 98).

So that nothing was gained in that direction by Gardner.

These facts clearly show that Gardner made nothing whatever,

when he made his chair seat, which was not public property and which every man had an equal right with him to make. HE DID NOT INVENT ANYTHING.

2d.

Appellees' Prior Patents.

Aside from the Mayo patents, under which we made our chair seats, the state of the art is shown by the other prior patents, put in evidence by the appellees, demonstrating every element of the Gardner seat, some having more than one element and some only one element.

We shall seek to classify them according to the elements specified in the Gardner reissue No. 9094, sued upon, under the following heads:

A.

THE MATERIAL.

B.

THE CONCAVE-CONVEX FORM.

C.

THE PERFORATIONS.

We shall even add a fourth element which Mr. Kittle thinks Gardner invented, and which we claim is not an element of invention, but a result of what Gardner did, to wit:

D.

ADAPTABILITY.

These are all the elements constituting Gardner's alleged invention, as made out even by their own witnesses.

(Record, pages 240 and 244.)

A.

The Material.

This is found in the following patents:

Mayo's two patents (Record, pp. 386 and 391).

J. H. Belter's two patents (*Ibid.*, pages 393, 401).

Of the first we have spoken and of the second we have only to refer to them and quote the following from J. H. Belter patent, dated Aug. 19, 1856, No. 15,552 (Record, page 393.)

Page 395. "Fig. 6 shows a few pieces of veneer glued together " in the same manner as are the veneers in my bedstead."

Page 397. "Each alternate layer is placed with the grain " standing perpendicularly, while the others are placed with " the grain running in a horizontal direction, as shown in a " larger scale in Fig. 6."

" The whole are glued together at one time under pressure." (Page 397.)

" The sheets to form one surface being spread on the table, " and liberally covered with glue, each successive layer should " be treated in the same manner, taking care to lay the veneers " in each layer so that the grain shall run at right angles to the " grain in the last. Any odd number of layers may be used." (Page 398, 2d paragraph.)

" I am aware that veneers glued together with the grain of " each layer standing at right angles to the next, have been " long in use, for the purpose of combining strength and light- " ness."

The second patent to J. H. Belter, February 23, 1858, No. 19,-405 (Record page 401, *et seq.*), gives almost in detail all the information needed to make a Gardner chair seat, and we must refer to it rather than quote from it at length.

In these exhibits, it must be admitted, was given to the public all the information needed, or that could possibly be given about layers of veneers being glued together with their grains crossing.

Nothing could be added to them by Gardner at the late date of 1872.

This material, then, we had a right to use as public property, and the Belter patent even shows that Mayo was not the original inventor of the same.

All the facts so clearly brought out by the appellants' witnesses, as to the durability and pliability and adaptability of veneers, the stress laid upon the fact of an odd number of veneers—as three —being used, their liability to warp, and their compression into one homogeneous mass, the great strength gained by pressing them into a concave-convex form, and the resisting power of an arch caused by

the concavity; the lightness of veneers over solid wood and other material, the cheapness, &c., &c.; all these features which have been dwelt upon at great length by these witnesses for appellants, were plainly set forth and described by these men in these patents long prior to Gardner in 1872, so that in all these respects, when it was thought Gardner had brought out new features with regard to veneers, he had done nothing whatever but put to use the knowledge long made known by his predecessors.

B.

The Concave-Convex Form.

This element of the Gardner seat is found in the patent to Z. B. Bellows (Record, page 410), and in the patent to Tice (*Ibid.*, page 414), and in the patent to Bramhill (*Ibid*, page 420).

Bellows' patent shows the seat, and the specification distinctly sets forth the manner of making it concave-convex, in the following words:

> "I then boil or steam them, then put them into a mold and "apply the power of a press sufficient to form them in a con- "cave form and of the desired shape" (Record, page 413).

That there is no difference whatever between the methods of Bellows and Gardner in producing this concave-convex form, we quote from the appellants' witness Hinkel (Record, page 127):

> Mr. Hinkel produced a seat made by him "in accordance "with the specification and drawing of said Exhibit Bellows' "Patent," and this seat is "Complainants' Exhibit Bellows' "Seat," and upon closer inquiry Mr. Hinkel said of this Bel- "lows seat that he made, in answer to x-Q. 144:
>
> "It was made under my supervision and pressed in cauls the "same as used with the Gardner seat," and to x-Q. 145, he said: "The Bellows exhibit was made in a regular Gardner "caul" (Record, page 154).

The pliability required in wood to produce the concave-convex form in the seat, is likewise produced by equivalent means in both the Bellows and Gardner seats, and again Mr. Hinkel assists us on this point.

The Bellows seat is steamed or soaked in hot water, and this moisture and heat gives the pliability.

(See Bellows Patent, Record, page 410, *et seq*).

In making the Gardner seat hot glue is used, and Mr. Hinkel

distinctly states that it is the moisture, in this case, which gives the pliability.

"x-Q. 111. What effect has glue upon thin veneer, such as "the middle veneer of the Gardner seat?

"A. The *moisture of the glue* makes the same more pliable.

"x-Q. 113. Would this glue also make the outside veneers "pliable?

"A. It would, more or less" (Record, page 148).

It is not the *heat* of the glue so much as the *moisture*, Mr. Hinkel says:

"x-Q. 119. The heat in this glue then affects the fibre of the "wood in the veneers and makes them pliable, so that they "can be readily pressed between the cauls into the concave-"convex forms; is that true?

"A. It has the same effect as it would have if the glue was "applied cold, *as the moisture will lead to the same result.*

"x-Q. 120. Is the proposition in my question No. 119 true "or false?

"A. *I believe the heat alone would not cause the veneer to be-"come pliable or flexible, unless in connection* with moisture."

And he then adds if the veneers were pressed while in a dry state, "they would not retain the shape of the caul."

(Record, page 149.)

So that it is conclusively shown that Bellows gave out the full knowledge as to obtaining concavity and convexity to wooden chair seats, and in this regard Gardner did not add anything whatever, because it is the agency of moisture in both upon which the emphasis is to be laid, and whether this be steam or hot water or glue containing moisture, it is all the same, and in each event it is equally the moisture which produces the pliability and the cauls which give the form.

We had a right, then, to use the material and produce the same concavity and convexity by the use of moisture, which Bellows told us to produce.

This change of material, from a single layer to three layers, was not Gardner's invention, but was, as we have shown, well known public and old material at hand, and in it we had a right to make the Bellows concavity and convexity, which Henkel admits and says is produced in and by the Gardner cauls and moisture, as Bellows did.

The Appellees' Exhibit "Bellows' Model," a small chair from the

Patent Office, shows the thin veneer with the convexity and concavity, containing every pattern of Gardner's concavity and convexity in a chair seat, with also the flexible margin even, and adapted to a chair seat frame, all that was needed to make this seat, even in the eyes of the appellants, a full-fledged Gardner seat, was to have made it of three layers of veneers. These three layers of veneers, used for a chair seat, were, as a compound material, glued and pressed together, well known at or before the date of Gardner's invention, and shown by Belter and Mayo, so that Gardner was void of invention in using the well-known equivalent for his chair seat.

It is our judgment that the Bellows seat, as our expert, Mr. Hyde, puts it, "is the device claimed in the first claim of the Gardner Reissue, 9094" (Record, page 340).

Besides the Bellows Patent, we have the Tice Patent (Record, page 414), and in figure 3 of the drawings is distinctly shown the concave-convex form to the chair seat, and, in addition, the perforations.

And in the Bramhill Patent (Record, page 422), it is said the material for a seat must be concave to be comfortable and prevent sliding off, and that is all that Gardner claims for his seat in his own testimony, to wit:

"Q. 26. What was the reason that your idea embraced mak-
"ing the material for the seat *concave* on the top portion?
"A. So as to give ease in sitting. A person wouldn't slide
"off when he sits back; and to imitate other seats, as all seats
"were more or less concave" (Record, page 71).

Thus it is shown, out of the mouths of appellants' own witnesses, that there was nothing new in all this that Gardner did.

Of these three patents, the Bellows, Tice and Bramhill, our testimony shows that they are Gardner's seat, save for the material, in all essential, substantial and material respects.

(Record, pages, 339 and 340, as to Bellows patent.)
(*Ibid.*, page 340, as to Bramhill patent.)
(*Ibid.*, page 343.)

All these seats are adapted to chair seat-frames, and are so shown and described.

C.

The Perforations.

This element is found in several of the appellee's exhibits, to wit:

The Tice patent (Record, page 414, *et seq*).

The Bramhill patent (*Ibid.*, page 420, *et seq*).

The Cochran patent (*Ibid.*, page 424, *et seq*).

The Farmer patent (*Ibid.*, page 428, *et seq*).

The Pratt patent (*Ibid.*, page 432, *et seq*).

The Appellee's Exhibit "Photograph Belter Model" also shows in both of the photographs the perforations or piercings through the veneers of which the back is composed.

It will not be seriously contended that any different or new result is accomplished or performed by the perforations of the Gardner seat, from what is performed by the perforations shown in these exhibits.

As the appellants' testimony clearly brings out the facts that the Gardner perforations produce and afford ventilation and ornamentation, and the ventilation not only cools the clothing but also permits the glue to dry out, if necessary, and also affords means for rain and water to run off the seat by passing through them.

The perforations, it is said, also add to the strength of the seat, by forming arches from one perforation to the other; they also make the seat lighter.

All these things are not matters of invention but the results of the perforations, and it is doubtless clear from the exhibits named, that each and all of these functions are performed in identically the same manner, by the perforations shown therein, as by the perforations in the Gardner seat; what may possibly be wanting in one is found in another.

Thus ventilation purely to the clothing is performed by all the exhibits named.

Ventilation to allow glue to dry out by the "Photograph Belter Model," &c., &c.

It seems hardly necessary to go into any detailed argument upon so plain a proposition in regard to perforation.

The final support to our proposition is found in the opinion of

the Circuit Court in the former suit on this chair seat, where it was held:

"In view of the prior perforated seats there was no patentable novelty in perforating a wooden bottom" (Record, page 369).

D.

Adaptability.

This is, as we contend, no element of invention but to meet the case fairly, as given to the Court by the appellants, we maintain all that can be said on this head is shown, if by no other exhibit, certainly and doubtless beyond cavil by the Mayo reissue Patent No. 3089 (Record, page 391).

Here it is distinctly shown that such material as the Gardner seat is made of is adapted and applied to a chair seat, and even more than this, it is applied on the top of the frame, and not in a shoulder or rabbet, and this is the precise case as appellants make it out, that in this way, the seats are applied by unskilled labor.

But we also maintain that this element of adaptablity is shown in the exhibits already referred to, wherein the seats are applied or adapted to seat frames, whether they be wood, metal or rubber, it is the same, and nothing new or different was done, performed or accomplished by Gardner with his wood veneers in the respect of adapting it to a seat frame, from what was done by Mayo, Tice, Bellows, Bramhill, Cochran, Farmer and Pratt.

The edge trimming, so thoroughly impressed upon Mr. Kittle's mind, as the element of importance in adapting the Gardner seat, was done in each of the exhibits above cited, and necessarily done, and the only way to do it properly and make a practical job or even a respectable looking seat. They could not be trimmed off at any other point or part, and thus they were adapted to chair seats in precisely and identically the same manner as the Gardner seat, and this alleged element of invention, if the Court should so hold, was not new with Gardner, but an old and well-known element.

This question of adaptability, viewed from another point, is only saying the seat fits the chair frame for which it was made and intended, and this is clear when it is recalled that a 20-inch seat cannot be made to fit a 25-inch seat frame, and a 30-inch seat would be ruined by being reduced to a 15-inch seat frame, and of different shapes the same is true, and all the prior seats could be and were

adapted to the seat frames for which they were intended. This is not seriously disputed by appellants when fairly asked about it.

(Record, pages 267 to 269.)

It is true Mr. Kittle here lays stress on the margin outside of the concave, but the answer is plain enough that the patent No. 9094 does not claim or describe anything about a margin, and the appellants have no right to anything of the kind.

The Baillie Chair Back as a Defense.

The appellees' Exhibit Ballie Chair Back is a component part of a full-sized chair, and in its identical form, without change or repair, as it now is in this chair, has been used for twenty years.

The appellants agreed to a statement of facts regarding this chair back.

1st. That it illustrates "what was known in the art at the time of the patent to John H. Belter, Feb. 23, 1858, No. 19,405."

2d. That such a device could have been made as early as 1858, and was at that date known to the art.

3d. That it is composed of "layers of veneers, laid one upon the other, the grain of one layer crossing that of the next one to it, held together by glue."

4th. That it was pressed between two cauls "one of which was convex and the other concave."

5th. That the cauls and the pressure gave the convex-concave form (Record, page 347).

The only thing not admitted is regarding the holes or perforations in this back. It remains a question for the Court to answer whether they are perforations, or if not all of them, whether or not there are perforations in this back; and we contend, even if the large holes should not be so considered, yet there are numerous small ones, which are perforations and identically like those made in Gardner's seat. We referred to them in cross-examination of appellants' witness, Hinkel (Record, page 152).

Our testimony is clear, that the Gardner seat, in its individual and combined elements, is found in this Baillie chair back.

(Record, pages 347 and 348).

We contend that the *chair back frame* performs all the functions, so far as the back is concerned at least, that the *seat frame* does surrounding the Gardner seat.

Whatever a *seat frame* does, as to supporting or holding together other parts of the chair, as appellants' expert, Kittle, ex-

plains it (Record, page 236), is perfectly immaterial, as these things do not in any way relate to the Gardner seat, and its adaptation or combination with the chair seat frame.

In both instances *the frame holds, supports, contains or retains the back or the seat*, and that is all, and hence the two frames perform alike the same functions (Record, pages 265 and 266).

Against this Baillie chair back the appellants have only been able to say a few weak things, which do not in any way destroy or weaken our position regarding it, as a full and complete answer to the patent sued on.

The appellants' witness, Henkel, says:

The spaces are "known as fret work," their object is "ornamentation," and they would not answer in a chair seat, because the seat would be too weak (Record, page 144).

Our answer is that if the spaces are too large, make them smaller, and then the requisite strength for a chair seat would be attained, and no objection can be raised to this, because Mr. Henkel admits that there is no limit to the smallness of spaces in fret work; he says:

"There is no particular size. It depends on the design entirely" (Record, page 151).

And there are many smaller holes in this Baillie back. That they afford ventilation and allow glue to dry out is too obvious to be discussed.

The appellants' witness and expert, Kittle, says, regarding this chair:

It is "scroll work" without explaining if or how it differs from "fret work," and such a back is thick, and only fits the particular back for which it is made, that it is too weak for chair seats, its surface is uneven, it is intended for a different purpose. That it is "not a dishing form," has no flexible margin, and finally, the ornamentation in the chair back is by means of the "scroll work" and Gardner seat by round holes (Record, pages 234 to 236).

It will be observed at once that Mr. Kittle does not compare this chair back with the claims in the Gardiner 2d reissue, No. 9094, sued on, but talks about things not even hinted at in that reissue, and entirely outside of it; for instance:

That reissue No. 9094 does not describe or claim a chair seat as thick or thin, nor with a margin either flexible or rigid; nor does it say how strong or weak the seat shall be; nor is the seat confined to an even surface; neither is it confined to a dishing form,

but claims in both claims concave seat (see patent sued on No. 9094), and this embraces, as Mr. Kittle admits, both a dishing form and "all other practical forms" (Record, pages 247 and 248).

This chair back speaks for itself, and is a practical form, and similar to "Defendants' Exhibit Yellow Chair" in its concavity, which is one of appellants' manufacture, made under the patent sued on (Record, pages 261 to 263), and the yellow chair bears the peculiar stamp the appellants got up to distinguish their chair seats from the alleged infringer's chair seats, and this stamp has reference to the original patent, of which the one sued on is the 2d reissue, No. 9094 (Record, page 210).

All these facts being true, it does not appear how the Baillie back differs from the Gardner seat, especially when we compare the elements of the Baillie back with those in the patent sued on, to wit:

1st. The material is there and put together in identically the same way.
2d. The concavity is there and made in the same way, and also the convexity is there.
3d. The perforations are there, and for the same purpose.
4th. Even the adaptability is there, thus meeting at every point all the details of the Gardner chair seat.

All these elements are there combined and joined together in the same way, and for the purpose of performing the same functions both separately and combined as do the elements which go to make up the Gardner chair seat.

If it should be seriously said the unevenness caused by the carving in this back, or the purpose for which the back is used is different from the use to which a chair seat is put, and therefore Gardner made an invention, we beg leave to reply that this is but skill to omit the carving, and not a high order at that, and that it is but a double use of the same thing whether we sit upon or recline against an article made in conformity to the Gardner patent, and using a Gardner seat for a chair back would not create a new device or make a new invention.

Hence the Baillie chair back is completely the Gardner seat.

The Belter Patent No. 19,405.

This patent shows and sets forth every element of advantage derived from the union of veneers with their grains crossing, pressed

concave-convex, perforated, &c., &c. It is a dissertation, in fact, far in advance of what Gardner knew or what has now been shown in favor of his chair seat.

Against the proposition set forth in this Belter patent or the photograph the appellants have not said a word, but by some side issue their witnesses have tried to mislead the attention to minor and unimportant things, as, for instance, appellants' expert, Kittle, says :

Belter chair back must be thick, and must set up vertically, and is not capable of being readily fitted to a frame by simple edge trimming (Record, page 232).

And of the Belter photograph, Mr. Kittle contends, the perforations shown therein are something else (Record, page 233), but if piercings through the veneers are perforations, it is difficult to understand how these photographs do not show perforations.

Mr. Kittle, however, confesses the words, "compress the veneers until cold, between slightly dishing cauls," in this Belter patent, would teach one how to form the concave-convex necessary for a Gardner seat (Record, page 247).

We have pointed out and cited what Mr. Belter says in his patent in order to call attention to what is said in favor of the Gardner seat, and to show that all the appellants can now say had already been said and published by Belter, to wit: Appellants' witness, Henkel, says the Gardner seat possesses the following advantages; (Record, pages 141 and 142) :

1st. The perforations relieve the strain upon the fibre of wood.
2d. They assist to retain its shape.
3d. Perforations add to the strength of the chair by forming arches.
4th. The perforations permit the glue to dry out better.
5th. Concave-convex assist the perforations to appear more advantageously.
6th. The concave gives comfort to the seat.
7th. The perforations afford ventilation to the seat.

(Record, pages 150 and 151.)

And complainants' expert, Kittle, says of the Gerdner seat (Record, pages 225 to 227) :

The odd number of veneers keeps the seat from warping, &c., &c.

Not one of these things, so nicely and clearly said by these witnesses, had been overlooked by Mr. Belter, so that nothing was left for Mr. Gardner or his witnesses to add.

Process of making the Gardner Seat.

Outside of the patent sued on we have this process stated plainly three or four times.

Twice by the inventor (Record, pages 323 and 70), and he says the veneers were for the purpose of strength and to keep the seat from splitting (Record, pages 70 and 71). The concave is for comfort (Record, page 71).

The perforations for ornamentation and ventilation, including water running off the seat (Record, page 72).

Again, the process is given by appellants' witness and expert, Henkel (Record, page 145).

He does not differ from the inventor at all, and says the whole process requires no machinery, except to produce them cheaper than by hand (Record, page 146); and again the process is given by appellant's witness, Pratt, a man who never saw them made (Record, pages 118 and 119); a few points in passing are well to keep in mind.

These seats could not be made if pressed in a dry state, and if they were so pressed they would immediately go back to a flat surface. This is given to us by appellants' witness Henkel, who made these seats for the appellants as their foreman (Record, page 149).

The glue is necessary, and especially the moisture in the glue, to make them pliable to press and retain the concave form.

(Record, pages 148 and 149.)

Farmer Seat.

This patent shows the element of perforations, and its adaptability to a chair seat frame; these points are so obvious they need no comment (Record, page 344).

This patent also shows a seat as a substitute for cane, as admitted by appellants' witnesses (Record, page 194).

And this seat does not require skilled labor to adapt it to a seat frame; this is shown likewise by a witness who was thoroughly acquainted with this Farmer seat, and with Mr. Farmer himself (Record, page 193).

This seat was secured to the seat frame as Gardner's seat is, and the perforations in both were the same (Record, page 191).

Bramhill Patent.

We have already laid great stress upon the point that the ap-

pellants' expert, Mr. Kittle, says the Gardner seat is to be of a dishing form in order to adapt it to the form of the person, &c.

The appellants' witness and expert, Kittle, admits this patent shows by the words in the patent, to wit: "It possesses all the ad- "vantages of a cushion in adapting itself to the shape of the per- "son," that a dishing concave form would be given by the Bramhill seat (Record, page 266).

So that Gardner did not advance beyond Bramhill in this respect. Besides this, "Defendants' Exhibit Bramhill Model" shows all the elements of the Gardner seat—concave—convex, in a dishing form, perforations and adaptability. All that Gardner did was to take Mayo's material, use Mayo's advice as to making the concave, and he had his wonderful Gardner seat. That is, with the assistance of Mayo and Bramhill, and doing what they told him to do, he did what we now have (see Record, page 342).

Gardner Patent 127,044.

The appellees have put in evidence this patent and its reissue No. 7202 (see Record, pages 437 and 441) for the purpose of showing that George Gardner did not have any legal right to claim or hold two patents for the same invention, and further, that the patent sued on, No. 9094, is void because anticipated by these exhibits, and our position on this point turns out to be true, although appellants' witnesses have tried to swear it away.

1st. This patent No. 127,044 is prior in number, although of the same date as the original, No. 127,045, of which No. 9094 sued on is a reissue, and the law is too well settled to need a citation, that of two patents for the same invention, the first in number or date, or both, destroys all validity in the second or later patent.

2d. This exhibit, No. 127,044, and its reissue, No. 7202, show and describe identically the same invention as the sister patents No. 127,045 and its reissue, No. 7203 (Record, pages 372 and 376).

The proof is clear and uncontradicted that the devices shown in each are the same, and that the patent No. 127,044 is the same device and the same combination of elements as the patent sued upon (Record, pages 344 to 346).

The appellants endeavored to answer our position by asking the inventor which seat he invented first, the one shown in patent No.

127,044 or No. 127,045, and he of course answered, the seat shown in patent No. 127,045, because it is the reissue of that patent, namely, No. 9094, upon which this suit was brought, and to answer otherwise would have been to destroy the appellants' case entirely (Record, page 74).

If our position was not true, and the appellants had not feared a fatal result from our introduction in evidence of Patent No. 127,-044, why did they ask such a question?

The asking of such a question admits our position to be true, unless they could prove the invention in No. 127,044 to be subsequent to No. 127,045. But unfortunately for the appellants, they put in evidence a document which speaks in tones more forcible than the inventor, and which shows his statement not to be true, and that our position is true.

The inventor was in a smoking car all alone when the idea of his chair seat occurred to him (Record, pages 69 and 70).

We asked him the date when this idea occurred to him in this smoking car, and he replied, in September, 1871 (Record, page 85).

He was positive of it because he made the invention about two months before he made his application for a patent (Record, page 85).

Now let us turn our attention to the application and see what he invented in September, 1871, for which he made application two months later, and this is the document above referred to, and is found in the Record, pages 270 to 280.

This is George Gardner's first application for a patent on a chair seat; it was sworn to November 16th, 1871 (*Ibid.*, page 272).

This is just about two months after he was in the smoking car, September, 1871.

This application refers, at page 272, to sheets of canvas between the veneers, and the claim is for the alternative method of making the seat "either with or without the canvas" (*Ibid.*, page 273).

The examiner would not allow this alternative claim (*Ibid*, page, 274), and hence the entire application was withdrawn, and a new one for the seat without the canvas, and the identical claim of the original patent, No. 128,045, is then allowed (*Ibid.*, page 275).

After this, on the 15th day of January, 1872, Mr. Gardner made another application and obtained the patent No. 127,044, with the canvas between the veneers (Record, pages 280 to 283).

Thus it will be seen that the original invention was the seat with the canvas, and, but for the Patent Office refusal to allow an altern-

ative claim, Mr. Gardner would have had only one patent containing both styles of chair seats, with or without canvas.

We maintain Mr. Gardner was right in his view as first presented in his original application, and that is, that it is the same seat and the same alleged invention either "with or without canvas" between the layers of veneers.

We also maintain that Mr. Gardner was mistaken when he said he invented the seat with the canvas subsequent to the seat without the canvas.

The records show the contrary; they show both at the same time, and both as one invention, and being the same and being of the same date, this Court must declare the patent No. 127,045 void and all the reissues thereof, which includes the one sued on, No. 9094, because a man cannot have two patents for the some invention, and the best proof that these patents, No. 127,044 and No. 127,045, are for the same device and the same invention, is the inventor's own oath made at the time of the first application in November, 1871.

SECOND PART.

THE LAW.

Construction of Reissue Patent No. 9094, sued on.

In considering this heading three questions arise:

1st. What does the reissue No. 9094 cover?
2d. What is the scope of reissue No. 9094 as defined by appellants' witnesses?
3d. Is the reissue No. 9094 a legal reissue, and for the same invention as the original?

I.

What does the Reissue No. 9094 cover?

This question is now considered irrespective of witnesses' testimony, and from a perusal of the patent No. 9094.

There are *plainly three elements* spoken of and shown in the drawings, entering into the device called a chair seat.

1st. The veneers. These form the material out of which to make a seat, by being glued together in such a manner that the grains of one layer cross those of the next.

The question here to be discussed is what is meant by "veneers" and "layers"?

We had taken the position that this was immaterial, so long as veneers were used, placed in layers and glued together, but the appellants have voluntarily taken the position that each "layer" must be one continuous broad sheet of "veneer," as large as the seat to be made therefrom (Record, page 249); and we therefore leave this discussion until we speak of the infringement.

2d. The next element consists in perforations. No particular contest exists regarding this element.

3d. The last element is the concavity and convexity of the seat. This element, in this double form, appears for the first time in this particular reissue, and it appears in this duplex form, as if it were intended to lay stress upon its being *convex* as well as *concave* (Reissue No. 9094, near end of page 383, Record).

Adaptation.

There is no element of invention set forth or described in relation to the adaptation of this chair seat to a chair seat frame. It is stated that the seat "is adapted," &c., "to any chair frame" (*Ibid.*, p. 383), and it is claimed in the first claim as "adapted to a chair frame, substantially as set forth," but these words do not describe or convey any act of invention in relation to the chair seat; for the reason that, as a chair seat, and, as it was the intention of Gardner to make a chair seat, he necessarily designed an article adapted to be used as such. That is, the adaptation to chair seats came along as a necessary result of what he did, and not as a part of invention prior to finishing the device invented. He might as well claim to have invented the comfort and durability his seats afford.

Gardner just as much invented the person who occupies his chair seat, because by the shape of the person he is adapted to sit comfortably on the Gardner seat. Or the legs of the chair to support his chair seat, because his seat is adapted to be upheld by the legs of a chair for the purposes of a seat.

The adaptation of Gardner's device is the result of his act, and results are not invention, and cannot be claimed as such. And, therefore, we contend there is no element of invention about the

adaptation of the Gardner seat to a chair frame. The results of perforations are ventilation and ornamentation, and the result of concavity of the seat is comfort. But these results were not the invention; and we contend that "*adaptation*" *is a result*, and not an element of invention.

This leaves in the reissue, No. 9094, three elements combined to constitute a device or article said to be new, to wit:

(1) Veneers forming the material.

(2) Perforations.

(3) Concavity and convexity of the veneers.

The inventor agrees with us that these are all the elements which make up his invention (see Gardner's testimony, question 19, Rec., page 70, and also see page 323).

What do the Experts contend?

This question requires three divisions:

The appellants' experts, two in number, give materially different versions, Mr. Serrell one version and Mr. Kittle another. These will be separately stated as first and second.

3d. The appellees' expert, Mr. Hyde, agrees with our view just above stated.

Serrell's Testimony.

I.

Appellants' expert, Mr. Serrell, says that the Gardner reissue No. 9094 is an invention of a chair seat made up of,

(A) "Layers of veneers of wood glued together," and their grains crossing.

(B) "Concave or dishing."

(C) Adapted to a chair frame, the upper surface of the seat concave and the lower surface convex.

These elements combined are subject matter of the first claim. The second claim, Mr. Serrell says, is for,

(A) Seat "made of laminæ of wood glued together, the grains in one layer crossing those of the next."

(B) The upper surface concave and lower surface convex.

(C) Perforations through the seat (Rec., page 28).

Mr. Serrell, therefore, construes *each claim to be for three elements combined.*

He does not in any way illustrate what is meant by "*layers of veneers of wood.*" This is left to conjecture, so far as his testimony goes, and this is true in relation to his testimony regarding the alleged infringing seats.

Kittle's Testimony.

II.

Appellants' expert, Mr. Kittle, endeavored to clear up all doubt as to the reissue No. 9094, and gives in unqualified terms the construction, differing materially from any possible construction of Mr. Serrell's testimony.

Mr. Kittle says: The Gardner reissue has four elements of invention:

1st. Material. 2d. Concavity and convexity. 3d. Adaptability. 4th. Perforations (Rec., page 244).

We have already shown that adaptability is no element of invention, but a result of the combination of the other three elements, and as such did not form any part of Gardner's invention, any more than the appearance of the seat itself, being white or black, according to the wood used.

Mr. Kittle differs from Mr. Serrell in that he expands the reissue into more elements, and lays great stress upon the adaptability.

Further than this, Mr. Kittle lays stress upon the following particulars:

(A) He finds the Gardner seat can be applied by unskilled labor, as particularly set out in reissue No. 9094, and this he claims is an element of invention, and quotes from the reissue to show it (Rec., page 241).

(B) The layers of veneer, in reissue No. 9094, must be the full size of the chair seat to be made. Anything less than this is not Gardner material.

Anything different from this would not make the Gardner seat, nor come within the terms of the Gardner patent (Rec., pages 249 to 251).

The Court will perceive how plain and unequivocal this testimony is, and how plainly impossible it was, in view of this testimony, for Mr. Serrell to tell what the middle layer of the alleged infringing seat was.

(C) Mr. Kittle also finds that Gardner limited his invention to three veneers, and no more (Rec., page 249).

In this respect he contradicts another of appellants' witnesses, Mr. Hinkel, of whom it was said he was the best expert because he was so practical.

Mr. Hinkel said Gardner had not limited himself to any number of layers of veneer (Rec., page 147). And again, the inventor contradicts Mr. Kittle's construction, by testifying that the only difference would be the giving of more strength to his seat and making it more expensive, if more than three layers of veneer were used (Rec., page 84).

(D) Mr. Kittle has distinctly pointed out the elements of invention, and the advantages arising from the union of said elements (Rec., pages 225 to 229, also 244), and in each answer has brought out his view of adaptability being an element of invention.

The advantages, arising from the union of these elements, he admits, upon cross-examination, not to be anything but the results of what Gardner did (Rec., page 261).

This is just our view, and *as* one of those results must be considered the adaptability of the article made from the union of these elements, and this is in effect admitted by Mr. Kittle in his answer to cross-question 115 (Rec., pages 261–262), wherein he plainly shows, that, but for this, to him, troublesome question of adaptability, he would find Gardner's invention in every article where three or more layers of veneers were glued together, pressed concave and convex, and perforated.

(E) The further elements found by Mr. Kittle in Gardner re-issue No. 9094, are these: The seat must have a flexible edge, so it can be trimmed on its edge, and thus, by unskilled labor, be adapted to the chair seat (Rec., page 235).

(F) The perforations must be round holes, and not of any other form. Not because other forms are unsuitable to woodwork, but round holes are easier to make, and better for a seat which unskilled labor is to adapt to a chair seat. Besides, to avoid the holes in the Baillie chair back, it was necessary to take this position (Rec., page 235).

(G) Finally, the concave must be a dishing concave. This is to distinguish this seat from all other forms of cancave seats, and

to impress upon this allegal invention a feature different from what the inventor ever dreamed of (Rec. page 235).

Hyde's Testimony.

III.

The appellees' expert, Mr. Hyde, is still clearer than either of the preceding in pointing out the elements of invention, and their union in the Gardner chair seat. He says they are three :

1st. "The arrangement of the wood veneers."
2d. "The concave and corresponding convex form."
3d. "The perforations."

The concavity of the seat is used in the broad sense of that word, and is not limited to a dishing form (Rec., page 339.)

The Court will now preceive there is an irreconcilable difference between the appellants' and appellees' experts. To accept the one is to totally reject the other. There can be no compromise between the positions they occupy.

This will be further seen under the next question discussed.

Appellants' Witnesses on No. 9094.

The Scope of Reissue No. 9094 as Defined by Appellants' Witnesses.

The reissue No. 9094 has, beyond a reasonable doubt, been expanded far beyond the scope of the original No. 127,045 or the first reissue No. 7203.

1st. It is in evidence that the method of applying the Gardner seat by unskilled labor is of great value, and this is one of the most important elements of invention in the reissue No. 9094 (Record, pages 240 and 241).

2d. That this reissue describes and claims an alternative method of of applying this seat to the seat frame, either in a rabbet, or flatly upon the upper surface of the seat frame (Record, page 265).

3d. If the Gardner seat had to be fitted into a rabbet, it would require skilled labor to do it (Record, page 264).

4th. If the Gardner patent was limited only to the method of fitting the seat into a rabbet, it would be a serious limitation to the

patent, and it would limit the scope of the Gardner patent (Record, pages 264, 265).

These features appear only in this reissue No. 9094. Neither the original nor the first reissue, No. 7203, show, describe or claim any other method of adapting or fitting the Gardner seat to a frame, than by that process of fitting it into a rabbet, and to do this requires skilled labor. To expand by reissue, so as to embrace all methods, and to claim an alternative method, is beyond question an illegal use of the privilege of reissuing a patent.

Its effect is to broaden the patent, not to limit and narrow it. It includes ideas not belonging to the inventor at the date of his invention. It takes in what has become known since the invention and what it required eight years of work and study to learn, and it must destroy the reissue No. 9094, to thus write in it what was gleaned from an unsuccessful contest over the invention in this Court, and after once reissuing the patent.

Is the Reissue No. 9094 a Legal Reissue, and for the Same Invention as the Original Patent?

After what we have said, it is doubtless clear that the following results have finally been attained, by this last reissue of the Gardner patent:

I.

New Matter.

New matter has been introduced into the reissue No. 9094, to wit: (see Record, page 272, Gardner original, and 381 Gardner second reissue). In line 45 of the reissue, the description is " and having " a concave or *dishing form* and perforated."

The " dishing form " is new, and did not appear in the original, even the drawing did not show it, but simply a concave from the front of the chair to the back, in Fig. 2, and the proof of this is that the side rail of the seat frame is visible as a straight line in the background, and in Fig. 1 not an indication of a dishing form of any kind is shown.

When a seat with such a dishing form is held up as in Fig. 1, the round line where the concavity begins is plainly discernible.

At page 383, he says: "I do not lay any claim to the veneers " crossing each other and glued together." This is an attempt at a disclaimer, but is only a subterfuge for changing the invention.

Let us quote alongside of this the claim of the original patent No. 127,045, and see if the reissue tells the truth:

Reissue.	Original Claim.
"I do not lay any claim to the veneers "crossing each other and glued to- "gether."	"I claim * * * * a chair seat constructed of veneers of wood, with the grain runniug crosswise of each other and glued together."

The question cannot go unanswered. How can the reissue contain this statement as a truth, when each of the claims contains this very thing as the chief portion of the claim? to wit, "laminae of "wood with the grain crossing, glued together."

The answer must be, this is not a disclaimer, but a subterfuge to claim something which belongs to the public.

The same is true of all of the remainder of this fourth paragraph of the reissue, and the whole of it is new matter, and makes the reissue void.

In the fifth and next paragraph the reissue has entire sentences of new matter, in no way suggested by the original patent. Let us compare again:

Reissue.	Original Patent.
"And the seat is adapted to be secured "to *any chair frame*, as it is easily cut "and fitted to the same."	"The veneers rest upon a shoulder *f* "of a frame *F* which surrounds them."

These differences form one of the chief points of contention, as we have already pointed out. The appellants now say our chair seat is valuable, because we can apply it so easily to any kind of a chair seat, and hence there must have been invention. Our answer is, and always has been, that that was not Gardner's invention, but his seat had to be set into a rabbet. His original patent said so. The drawings of all his reissues and original patent show it. His models from the Patent Office show it. His first reissue said so. And not until they found the only way to distinguish it from older chair seats was to make it broad enough to include unskilled labor, did it occur to the appellants to reissue and put in the new matter above quoted and compared.

In the eighth paragraph is new matter, not warranted in any way by the original, to wit:

"The seat is of a concave or dishing form, so as to be better "adapted to the shape of the person, and the underside of the seat "is convex."

The original said (Rec., page 378, 10th paragraph): "A slightly "concave configuration may be given to the seat, *as shown in* "*Fig. 2.*"

That concave configuration, in Fig. 2 of the orginal patent, was not of a dishing form, as we have before shown. The appellants evidently found the original device not to be such a useful thing for a chair seat as it at first appeared, and so they entirely changed the invention to a "dishing form," and besides to such a dishing form as would "be better adapted to the shape of the person."

Again, they added the "*convex*" form of the underside, so as to increase the number of elements. To claim such an addition is fatal to the reissue, because nowhere suggested or pointed out in the original.

Claims of Reissue.

We turn our attention to the claims of the reissue. A single suggestion ought to suffice to show how radically changed the invention in the reissue is from that in original.

The original claim was for "a chair seat, constructed of veneers of "wood with the grain running crosswise of each other and glued "together."

This the inventor, Geo. Gardner, plainly tells us was his invention.

> x-Q. 88. "What I want to know is, if your alleged invention of a three-ply, grain-crossed, concave-convex, perforated chair seat embraced any other form of a chair seat than the concave-convex in a circle?"
>
> A. "When I made my model I sent it to my patent lawyer at Washington, and told him to make out the papers, and put in all the claims that I was entitled to.
>
> That I cannot answer. I find people differ as to what is a concave-convex."
>
> x-Q. 89. "What was your invention, a concave-convex seat in all forms of concavity, or only concave-convex in a circle?"
>
> A. "When I first invented that seat and made the experiment, and found that I could put a concave in three or more veneers, I thought that my patent would cover *any kind of a chair seat* made out of veneers with the grain running crossways, with or without concave, or put in round or square or oval or any other way to give ease to the sitting" (see Record, pages 80 and 81).

Taking the inventor at his word—and this Court is bound to believe him as against any other witness as to what he invented—the reissue would seek to falsify the inventor's statement, by claims adding elements, as we have pointed out, not supported by the original patent.

The first claim is for a chair seat the same as in the original patent, with the following changes and additions: "Concave on the "upper surface, convex on the lower surface, adapted to a chair "frame."

This makes an entirely different seat from the device in the original patent, and in view of the recent decisions of this Court is an unwarranted claim.

The second claim of the reissue is for a chair seat same as the original with the following changes and additions:

"Concave on the upper surface, convex on the lower surface, "and perforated."

These additions and changes were public property by virtue of their dedication to the public, they not having been claimed in the original patent, and not omitted by inadvertence, accident or mistake, for Mr. Gardner tells us so, as above shown. Hence, to add such changes to the seat by reissue, plainly makes the reissue void.

II.

Expansion of Reissue.

Another effect of this reissue is to expand Gardner's invention beyond its true scope, and beyond what he ever invented, and to give to these appellants what did not justly belong to the inventor.

(*a*) The Gardner seat is now one to be applied by unskilled labor; an item not dreamed of by Gardner in 1872 (Record, pages 104 and 240).

(*b*) The seat needs only edge trimming, and is adapted to every possible description of a chair seat, whether with or without a rabbet, whether round, square, oval, oblong, crescent, star shaped, &c., &c., a possibility only attained after eight years from date of invention, an unjustifiable expansion by use of a reissue (Record, pages 229, 239, 243 to 244).

(*c*) The chair seat is now to be sold separate from the seat frame, an idea unwarranted by anything done by Gardner.

Even his model at Washington shows the seat frame, as well as the drawing, and that frame is to have a rabbet (Record, pages 208 and 229).

(*d*) Gardner's seat is to have a dishing concave, which is a construction not warranted by the model or the drawings or the original or first reissue, nor by reissue No. 9094, as both the claims say "concave," and that only (Record, pages 210, 247 and 248).

(*e*) Each layer of Gardner material must be as large as the chair seat, and only three at that; an idea invented even after the present reissue was obtained, and brought out in order to distinguish it from the Mayo patent (Record, pages 249 and 251).

III.

Reissue after Eight Years.

The reissue No. 9094 is void, because it was obtained eight years after the original patent was granted.

The same rule applies as to two years public use, prior to obtaining a patent, and after the lapse of so long a time a reissue is void.

There is no pretense of inadvertence, accident or mistake in this case, and it is a clear case of a reissue for the purpose of enlarging the scope of the patent.

Of the word "Adapted."

This word has received considerable attention in this case, and has come to be regarded, according to Mr. Kittle, as showing an element of invention (Record, pages 241 and 244).

Our position is otherwise. We contend, as has already been stated, that it shows a *result* and was meant to indicate that. Still, if we should be in error, we still maintain that it signifies a *completed act*, because it conveys the idea of a seat ready for use without further addition or alteration. This last view is also strengthened by the fact that the drawings in the original Gardner Patent No. 127,-045 (Record, page 375) and Gardner first reissue (*Ibid.*, page 380) and Gardner second reissue, sued upon, No. 9094 (Record, page 385), all clearly show the seat all ready for occupation, that is in the

correct and only true sense *adapted* to a chair seat frame; besides this "Complainants' Exhibit Gardner Model," in evidence, being the model Geo. Gardner sent to the Patent Office, shows the seat "*adapted*," that is, fitted and applied.

Upon this part of the reissue No. 9094 and on this word *adapted* not only depends one element of Gardner's alleged invention, but also the question whether the reissue No. 9,094 is valid or void, for the reasons:

1st. If the word *adapted* implies one element of invention the reissue must be void, as it is a new element introduced for the first time into this reissue, without any foundation in the original, as there is no mention of such an element therein, but, on the contrary, such words are used to show it is only a chair seat when actually fast to the chair seat frame, which Gardner invented. Hence the reissue No. 9094 is broader than the original patent, and is not for the same invention, but for that with something added to it; this is outside of and beyond Gardner's invention, and hence this reissue No. 9094 is even broader than Gardner's invention.

2d. If *adapted* means the seat as applied and secured to the chair seat frame, then the bill of complaint must be dismissed, because there is not a single word of testimony that the defendants ever sold a chair seat for that purpose, or even attached one to a chair seat frame, or in any way ever used one, or fastened one to a chair.

Certainly with such defects as this in the testimony the appellees are not to be closed up, and their right to make this article taken away.

The appellees can have the right to make these seats, yet not to use them, or secure them fast to chair seat frames, without infringing appellants' patent.

One of appellants' witnesses, Joel W. Mason, a man of high standing and integrity, and a chairmaker and dealer for forty-three years (Rec., page 45), testified to what a chair seat is, and this by questions put to him by complainants' counsel (Record, pages 51 and 52).

In this testimony, Mr. Mason clearly and unqualifiedly states that a chair seat requires the frame to make a chair seat of it, and without such a frame, it is not a chair seat, and further, that this Gardner chair

seat is not a chair seat without the frame (Record, pages 52 and 53).

So that our view is sustained by the complainants' case, as they make it out by their own witnesses.

No one else has testified what a chair seat is—by defining it—and this is uncontradicted testimony, and in the face of such facts, the appellees' position must prevail.

Again, Geo. Gardner evidently knew these facts, and so secured his material to a frame, and thus made a chair seat of it, and sent such a model to the Patent Office, and showed it in the drawings, and in his original patent No. 127,045, using these words in reference thereto:

"The veneers rest upon a shoulder *f* of a frame F which surrounds them" (Record, page 374).

Thus plainly showing that he did not invent the article, as such, independent of the chair seat frame.

The whole theory of the seat, separate from the frame, is evidently an afterthought, whereby it is sought to incorporate something new into the invention, and secure a monopoly of what Gardner did not think of until after the opinion by Judge Blatchford.

The Circuit Court seems to have taken this last view, and used these words, in the opinion, of this invention in the prior suit in 1879:

> "*And that the bottom thus made is secured to a frame which "surrounds it, and through the latter is secured to the frame "of the seat*" (Opinion of the Circuit Court—Record, p. 365).

This view is strengthened by the 3d and 4th claims of the Gardner first reissue No. 7203, which was before the Court when the above-cited opinion was rendered (Record, page 365).

In both these claims the combination was "*with the frame of a seat.*"

Now, to extend the matter and expand it into an element of invention, as Mr. Kittle does, or, to make *adapted* mean an article independent of a chair seat frame, is clearly to bring in new matter not shown or referred to in any way in any letters patent or model or anything which George Gardner ever made, invented or owned.

Hence our conclusion is irresistible.

1st. *Adapted* means the seat actually fast and secured to the seat frame.

2d. *Adapted* does not mean the chair seat can be fitted and ap-

plied to all kinds of chair seat frames, or sold separate from the seat frame, and to place such a construction upon the patent is to broaden it beyond Gardner's invention and hence to make it void.

Of "Concavity" and "Convexity."

The inventor Gardner said he could not tell what was his invention in relation to this element of the seat, nor whether it should be simply a circular or dishing concave, or embrace all forms of concavity, as he found people differ in regard to what is a *concave* (Record, page 81). And he did say positively his invention included any form of concavity without limit (Record, p. 324).

It was, however, a known thing outside of appellees' exhibits to press wooden seats into a concave-convex form; prior to Gardner's invention, this had been done by one of appellants' witnesses, Robert Wood (Record, pp. 108–109).

H. T. Pratt also made such a concave-convex seat prior to Gardner, and the use of Mayo's material by him would have made the Gardnder seat (Record, pages 121 to 125).

The concavity, as testified to by one of the appellants, O. L. Gardner, does not limit it to a dishing form; they make other forms such as in Appellees' Exhibit Yellow Chair, and even others besides this to suit the "different styles of chair and settee frames" (Record, pages 209 and 210).

So that our position is virtually admitted by the appellants, that a concave-convex seat does not mean a dishing form of concavity, but includes all concave forms, and this is just what Messrs. Wood and Pratt had made long prior to Gardner, equally as well as Bellows in his patent.

Want of Novelty.

The reissue 9094 sued on is void from want of novelty.

The union of these old elements did not require invention, and ingenuity was not shown in uniting them.

They did not produce any new, useful or different result, when combined, from that which each single element produced when used separately. Take each element by itself and analyze its function.

The concavity produces ease and prevents sliding off the seat, equally as well in the Bellows seat, without perforations, as in the Gardner seat with them.

The perforations ventilate and ornament an india-rubber or

metal seat just as well and as much as they do a three-ply veneer seat.

The material itself acts just the same, whether used in a Belter bedstead or chair, a Baillie chair back or a Gardner seat.

The union of these elements made a seat, at most, new to the trade, but not a seat wherein a single element or its character or the function performed by it was changed or modified, because of its union with the other elements.

As an article of manufacture, the chair seat is not *per se* a patentable device.

It requires the exercise of invention to make the article patentable; simple newness to the trade is not sufficient.

Thomas Phillip. Decisions of the Commissioner of Patents for 1877, page 93.

The Court said in Collar Co. vs. Van Dusen, 23 Wallace, 562: "More is required than what was necessary to construct the apparatus for its manufacture or production."

The combination of old elements may require the exercise of genius and invention, but *not necessarily so*, and, unless it is plainly shown to exist, the combination of such old elements is not patentable. More than skill is required to support a patent for such a union of old elements.

Fuller vs. Yentzer (Supt. Ct. U. S.), reported in decisions of the Com. of Patents for 1877, page 227; also Official Gazette, Vol. XI., p. 597.

See also Dunbar *et al.* vs. Meyers *et al.*, Decisions of Comr. of Patents for 1877, page 147. Official Gazette, Vol. XI., p. 35.

The change in the material used, as substituting this three-ply veneer for india rubber or metal, did not, in any sense, involve invention; because the veneer was a well known substitute for india rubber and metal for use in chair seats, at the time Gardner obtained his patent in 1872, as is shown by Mayo Patent of 1865; and also because the substitution of one material for another required no skill nor invention, nor the discovery of a single new function performed by the three-ply veneer, not already known prior to 1872, and it was simply a double use of the same thing.

See on this point, Dunbar vs. Meyers, *supra*, page 149. Also, Dalton vs. Jennings, Decisions of Comr. of Patents for 1877, page 158. Also Official Gazette, Vol. XI., p. 111.

Gardner has only made an aggregation of old and well known

elements, and his patent is void within the case of Combined Patents Can Co. vs. Lloyd, Federal Reporter, Vol. XI., No. 2, page 153.

Anticipation.

The alleged invention by Gardner was anticipated by the patents in evidence, and by the Baillie chair back. The Gardner seat is a combination of three elements, the materials, made concave convex and perforated. The rule of anticipation does not require, in such a case as this, that we should produce an article identical with the Gardner patent; for an article embracing the elements substantially as in the Gardner patent is sufficient. Thus the Mayo patents showing the material, adaptation as a chair seat, and the words in the reissue whereby the concave is produced, leave only the perforations to be added, and these, Judge BLATCHFORD has decided, did not require invention to add; thus our anticipation is made out complete.

So take the Bramhill model, and it at once is only a question of substitution of material, which, we have shown is not invention, thus making the Bramhill seat a complete anticipation.

Again, the Baillie back is a good and sufficient answer, because the elements of the Gardner seat are all there united, and used in precisely the same way; and it becomes simply a question of double use, whether to use a device like the Baillie chair back, for a chair seat, produces a device new to the Patent Law, when the device thereby produced does not require, receive or perform any new function or operation or result whatever. Does it make a new and patentable article to sit upon rather than lean against such a device as the Baillie chair back? As to the perforations in this chair back, it is submitted, they can be made round and smaller than they appear in said back, without either changing that back or requiring invention or skill to do so, it is not even so important a question as change in material, which we have shown is not invention. But the appellants have only expressed an opinion as to its weakness not supported by any tests whatever, while on the other hand the chair speaks for itself after twenty years' constant use, and is still intact and as strong as need be; its appearance sufficiently refutes any idea of weakness.

So we can allude to the Bellows chair. To add the perforations, the former decision says, is not invention; then, to use the Mayo material, and perforate it, in the place of what appears in Bellows'

chair, is equally void of invention; it simply required common sense, not even skill, least of all *inventive genius.*

Thus, we claim a full and complete anticipation to the Gardner seat, and especially on the ground, as our expert put it, what Gardner did "was to combine old elements which neither required modi- "fication, nor performed new functions" (Record, page 342).

Likewise patent No. 127,044 anticipates reissue 9094.

Reissue and Original Patents not the Same.

The reissue 9094 is void in law, for the following reasons:

1st. It is not for the same invention as the original Gardner patent No. 127,045.

One chair seat differs from another according as it has certain elements included or excluded from its combination; hence a plain flat seat, without any concavity or perforations, would differ materially from a seat embracing such peculiarities. Again, a seat having the element of adaptability differs, in so far from a seat not having that element, that the two must be considered as vitally different structures.

It has been shown that the element of concavity serves the useful purpose of making the seat comfortable and preventing sliding off. If this element is of any real practical worth, what would a chair seat, made of the same material but perfectly smooth, without any concavity, be worth? a very practical and forcible question. Would not such seats differ materially from each other?

Look at the case as it is, and see how much stress is laid on the concavity in the Gardner seat, its great use, &c., and then see how the appellants make it differ from those smooth, plain surface seats. This tells us of how much practical worth the concavity in the Gardner seat is.

Let us look again; it is not only a concavity, but a *dishing* concavity; that is of a peculiar form—a concavity in a circle.

Even as much stress is laid on the element of perforations.

At the heading of the reissue 9094 have been inserted a number of references to show what the Gardner seat is unlike, and among those references can be found the Mayo Patent, and this Mayo patent, Judge BLATCHFORD said, anticipated the Gardner original patent; and unless this reissue 9094 is something different from the original, it faces us as *res adjudicata* under the decision of Judge BLATCHFORD, as a void patent.

The appellants have construed the reissue 9094 to be a patent for a chair seat, embracing the following elements:

A. Three layers of veneer, grains crossing, glued together; limited to three layers.
B. With a dishing concave—convex form.
C. Perforated with holes, round in form.
D. Each layer of veneer the full size of the chair seat made.
E. Adapted to any and all kinds of chair seat frames.
F. Provided with a flexible margin outside of the concavity.
G. The seat so made and of such a character, that it can be applied and fitted by unskilled labor to the chair seat frame.

This is what is now to make up the Gardner chair seat; and when this structure, which is read in the two claims of this reissue, by the appellant's witnesses, is compared with the simple structure of the original Gardner patent, it seems wonderful what a transformation takes place by means of a reissue.

The *original Gardner Patent* No. 127,045, was for a simple union in a chair seat of "veneers of wood, with the grain running cross-"wise of each other and glued together;" and it will be seen the reissue has grown to embrace six different and other elements, not in any way claimed in the original patent,and not referred to in the specification of the original patent.

We maintain this brings this reissue within the rules laid down in the well considered cases, declaring reissues void.

Reissue is void if, by comparison, it appears it is for a different invention from the original. Russell vs. Dodge, reported in decisions of the Com'r of Patents for 1877, page 162; Official Gazette, Vol. XI., p. 151.

Where a claim on an application for a reissue contains matter not embraced in the original patent, it is void.

Surely this is the case with reissue 9094. (Street vs. Lauter, below.) And after the lapse or *five* years, one cannot obtain a valid reissue and put in what he omitted from his orignal patent. This is an abuse of the power of reissue. Street vs. Lauter, Fed. Reporter, Vol. XI., No. 3, page 309.

So where the claim was as extensive as the invention specified, a reissue is void, as beyond the jurisdiction of the Commissioner of Patents. This was the case with the Gardner original patent. If his original claim was too narrow, his remedy was not by reissue. Giant Powder Co. vs. California Vigorit Powder Co. *et al.*, Federal Reporter, p. 721.

It is the claim of a patent which is to be construed, and the Courts are bound by the claim; so is the patentee; and what is not found in a claim, is not to be considered by the Court as any part of the invention. Campbell vs. James, Official Gazette, Vol. 21, No. 5; Keystone Bridge Co. vs. Phœnix Iron Co., reported in decisions of Com'r of Patents for 1877, page 384; Official Gazette, Vol. II., p. 980.

The patentee cannot go beyond his claim, even if it is found in the descriptive part of the specification, as was decided by this Court in Lehigh Valley R. R. Co. vs. Packer *et al.*, Official Gazette, Vol. 20, p. 1891.

The Gardner Reissue 9094 changed the original invention and introduced new matter, and enlarged the scope of the patent, and is very much like the case of Miller vs. The Bridgeport Brass Co., Official Gazette, Vol. 21, p. 201.

It is quite as much a change to introduce new elements as it is to leave some out, and in this case, as in Miller vs. The Brass Co., the change was made because the original device was found to be of no real practical value. This, however, causes the reissue to be void, even if the specifications of the original and reissue do not materially differ. See Miller vs. Brass Co.

The reissue was not obtained for any reason known to the law; neither inadvertence, accident nor mistake has been shown to have existed either in relation to the original or the first reissue. See Combined Patents Can Co. vs. Lloyd, Federal Reporter, Vol. XI., p. 149; Giant Powder Co. vs. Cal. Vigorit Powder Co. *et al.*, Federal Reporter, Vol. IV., p. 720; Keystone Bridge Co. vs. Phœnix Iron Co., Official Gazette, Vol. II., p. 980.

No Infringement Proven.

There is no proof of infringement; we deny it in our answer, and it is a matter requiring serious and positive proof from the appellants.

State of the Art.

The state of the art can be shown by patents, &c., without setting up the same in the answer. We have, under this rule, the right to introduce all the exhibits not referred to in our answer—the Farmer patent, Gardner original, No. 127,044, and reissue 7202, and the English Botturi patent. Dunbar *et al.* v. Meyers *et al.*, reported in

Decis. of Comr. of Patents for 1877, p. 140 (see p. 149). Also' Official Gazette, Vol. II., p. 35.

Review of Opinion Dismissing the Bill of Complaint.

We show *first* how thoroughly independent this opinion is of the former decision of Judge BLATCHFORD, on the motion for an injunction; and *second*, we show this opinion is well supported by prior decisions. What we here cite is entirely from the opinion of Judge WALLACE, and it has no allusion to any former decision. It is in fact an original and an independent opinion.

An Independent Opinion.

UNITED STATES CIRCUIT COURT,

SOUTHERN DISTRCT OF NEW YORK.

WILLIAM GARDNER ET AL.

AGAINST

MARTIN HERZ and JOHN K. MAYO.

WALLACE, J.:

This action is brought to restrain the infringement of reissued Letters Patent No. 9094, dated February 24, 1880, granted to the assignee of George Gardner for an improvement in chair seats. The reissue contains two claims, of which the second only need be stated, which is:

"A chair seat made of laminæ of wood glued together with the grains in one layer crossing those of the next, concave on the upper surface, convex on the lower surface, and perforated, as a new article of manufacture, as set forth."

The original patent was granted to Gardner, May 21, 1872, and contained but a single claim, as follows: "As a new article of manufacture a chair seat constructed of veneers of wood with the grain running crosswise of each other and glued together, all substantially as set forth, and for the purpose specified."

Cases Cited.

An Independent Opinion.

This patent has been twice reissued, the first reissue bearing date July 4, 1876. The second claim of that reissue was as follows:

"As a new article of manufacture a bot-
" tom for a seat frame constructed of two
" or more veneers or thin layers of wood,
" with the grain of one layer crossing that
" of the other, said layers being secured to-
" gether by an adhesive substance and hav-
" ing perforations formed therein for the
" purpose of ventilation and ornamenta-
" tion, substantially as set forth."

(The opinion next refers to Mayo reissue:)

In division "E" of the reissue, the specification states: "In chair Fig. 2, the bottom
" B, may be formed of flexible material
" made up by the union of two or more
" thin layers of wood having the grain
" crossed or diversified in direction and
" united by suitable cement."

The specification also states they, "by
" adopting the well-known process of wet
" and dry heating in the course of manu-
" facture the several scales of wood may be
" brought to such a state of pliability as to
" assume any desired form by compression
" upon a matrix or upon formers."

Chair bottoms made of board and softened by steam, and pressed to a concave shape in a mould so that the form of the seat will conform to the shape of the person who may occupy it, are shown in the letters patent issued to Z. B. Bellows, bearing date March 15, 1859. So also the concave or dishing form of chair seats had been adopted long before Gardner's patent in ordinary chair seats.

In the specification of the present reissue the inventor states that he does not lay any claim to the veneers crossing each other and glued together, as these have been used for various purposes and have become public property, and that he does not claim the pressing of a chair seat in the concave form by dies.

As it had been pointed out by Mayo that the material used is pliable and can be

Cases Cited.

Aggregation of old elements. No new product. Unpatentable.

An Independent Opinion.

pressed into any desired form, and as the reissue disclaims the pressing of a chair seat in a concave form, as chair seats had been so formed, it is difficult to see how there was any invention in Gardner's chair seat.

Gardner merely applied a process that was old to a material that was old to obtain an old form.

Considered as a combination it is hardly possible to believe that the perforations or the concavity performed any new functions in the Gardner seat.

Cases Cited.

Wilson Packing Co. vs. Chicago Pack. & Pro. Co., U. S. Supreme Ct., 12 F. R., 222.

Thatcher Heating Co. vs. Burtis, 12 Fed. Rep., 569.

Reckendorfer vs. Faber, 92 U. S. Rep., 357. See 12 Fed. Rep., 727.

Hayes vs. Seton, do, 120.

The Packing Co. Cases.

13 do, 304, decided May 8th, 1882.

Perfection Window Cl. Co. vs. Basley, 2 do, 574.

Sawyer vs. Bixby, 9 Bltch., 361.

Double Ptd. Tack Co. vs. Two Rivers Mfg. Co., 3 Fed. Rep., 26.

Williams vs. R. W. & O. R. R. Co., 15 Bltch., 200.

Hailes vs. Van Wormer, 5 Off. Gaz., 89.

Elements Must Co-operate.

Doubleday vs. Roess, 11 Fed. Rep., 737.

Pickering vs. McCullough, 21 O. G., 75.

Old material and form. No new functions.

Wallace vs. Noyes, 13 Fed. Rep., 172.

No novelty where process is a single one, and there is no succession.

Same, p. 180.

"No combined patentable result."

Perry vs. Co-op. Foundry Co., 12 Fed. Rep., 436.

Piece of India Rubber with a hole in it. No one could lack skill to make the hole.

Rubber Tip Pencil Co. vs. Howard, 9 Bltch., 490.

Hole for light in fare-box. Any one could make it.

Slawson vs. Grand St., etc., R. R. Co., 4 Fed. Rep., 531.

Air spaces and to nail holes in corrugated iron. No invention to make larger, or different shape. Might work well, but any one could make it.

Belt vs. Crittenden, 2 Fed. Rep., 82.

Change caused simply by difference

An Independent Opinion.

An ingenious theory has been presented to the effect that the perforations and concavity co-operate in Gardner's seat to prevent warping and curling of the material used. If this is true, the same elements were combined in the Bailie chair back, and performed there the same functions they performed in the Gardner seat.

It may be that the Gardner seat is mechanically a better seat than any which preceded it, but his improvement is not a patentable one.

It is strenuously insisted that the popularity and success achieved by the Gardner seat beyond those of his predecessors affords cogent evidence both of the utility and patentable novelty in his invention.

The answer to this argument is that the success of his seat is probably due to a feature which is not suggested in the original patent, that is, its adaptability for use by unskilled workmen. His seats as now made can be fitted without mechanical skill to a bottomless chair, and are largely used to repair chairs in which the original seats have been worn out, and can be so used

Cases Cited.

in material. Gardner's seat thinner than Baillie—back holes smaller.

Albright vs. Celluloid Harness Tr. Co., 12 O. G., 227.

Reduction of size of old device for new use is no invention.

Double Ptd. T. Co. vs. Two Rivers Mfg. Co., 3 Fed. Rep., 31.

Gardner reduced the Baillie *holes*.

"Substantially same article."

Griffiths vs. Holmes, 8 Fed. Rep., 154.

Kerosene Lamp Heater Co. vs. Little, 3 Ban. & Ard., 312.

Dunbar vs. A. F. Tack Co., 4 Fed. Rep., 543.

"*Mechanical Skill* is one thing; *in-*
"*vention* is another thing. *Perfection*
"*of workmanship*, however much it
"may *increase the convenience, extend*
"*the use, or diminish expense*, IS NOT
"PATENTABLE."

Reekendorfer vs. Faber, ante.

"*Ordinary mechanical* ADAPTATION, nothing 'more.' Is not patentable."

Mahn vs. Harwood, 3 Ban. and Ard., 598.

Used flesh instead of grain side of leather. No invention.

Brummitt vs. Howard, 3 Fed. Rep., 801.

Sheet metal instead of *papier mache*. No invention.

Ingersoll vs. Turner, O. G., Vol. 12, 189.

Need not be practically useful apart from other known instrumentalities. Test is not "whether in present state "of the art his [patentee's] invention "(without improvement) would be "deemed of any value, or be saleable "for use."

Wheeler vs. Clipper Mow. & R. Co., 10 Bltch., 181.

Failure to attract attention is no proof invention is not complete and valuable.

Crandall vs. Richardson, 8 Fed. Rep., 808.

An Independent Opinion.

without any special skill. They are also largely sold to chair manufacturers, because they can be easily adapted to chairs of different sizes and seats of different forms. But the chair seat described in Gardner's original patent, and shown in the drawings, did not practically possess this characteristic of adaptability, but was a frame seat which could only be fitted to a chair by a skilled laborer. Such a chair seat would fail to meet the peculiar want which the present chair seat supplies.

Considered as a new article of manufacture, if the complainant's chair seat has no frame, and its novelty and utility consist in its adaptability to be sold separate from the frame, and to be readily applied by any person to any chair, then the reissue is for a different invention than that described in the original patent.

The bill must be dismissed.

Cases Cited.

Great sales no proof of invention, *Ibid.*

Grounds of Appeal.

The appellants must rest their appeal on one or more of the following seven grounds or reasons, which briefly stated are:

1. That Judge BLATCHFORD'S opinion, on a motion for a preliminary injunction, should not have been followed or referred to on final hearing.

2. That the facts in this case are different from those presented to Judge BLATCHFORD.

3. That the Gardner patent acknowledges the prior existence of Tice and Cochran patents, and both the Tice and Cochran seats were shown to be worthless structures.

4. That such worthless structures are no answer to the Gardner seat.

5. That the Court was in error on final hearing, in deciding that the "adaptability" of the Gardner seat gave it its success, and that this was a different invention from that described in the original Gardner patent.

6. That the Court was in error on final hearing, in deciding Gardner's seat "was a frame seat which could only be fitted to a "chair by a skilled laborer."

7. That even if Gardner was ignorant of the "adaptability" of

his seat, by unskilled labor, when he applied for his original patent, yet he could insert it in a reissue, and it would not be new matter, or make the reissue void.

We will discuss these seven allegations *seriatim*.

APPELLANTS' FIRST GROUND.

Judge Blatchford's Opinion.

Judge BLATCHFORD'S opinion on a motion for a preliminary injunction should have been followed at final hearing, for the following reasons:

A.

The conclusion of Judge WALLACE is true, when the 2d claim of the 1st reissue, No. 7203, and the 2d claim of 2d reissue, No. 9094, are compared, that is, the new claim brings forward the element of concavity, and now, for the first time, that element is to be passed upon by the Court. Hence, it is, in this view of the case, that Judge WALLACE says this is, "the only question not heretofore decided by "this Court." We must be careful not to misconstrue Judge WALLACE'S words, they are *not to the effect that the Court was not at liberty to again pass upon other questions* if thought best to do so, for on the argument Judge WALLACE distinctly said Judge BLATCHFORD'S opinion was not *res adjudicata*, but an opinion to be followed or not, in the good judgment of the Court.

Again, this passage from the opinion means, the new reissue, 9094, raises a new question, namely, in relation to the concavity, &c., and that new question is "now open" for the Court to pass upon.

Neither Court nor counsel thought or said Judge WALLACE was estopped from deciding other questions than the one relating to the concavity.

A proper reading of the opinion at final hearing will show that Judge WALLACE recognized the fact, that Judge BLATCHFORD'S opinion was on a motion, for the opinion says: "The first reissue "has been before this Court *upon a motion for a preliminary injunc-* "*tion*," &c.

Likewise, the first words of Judge BLATCHFORD'S opinion are: "This is a motion for a preliminary injunction."

Hence there could not have been a doubt in the mind of the Court as to the nature of Judge BLATCHFORD'S opinion. With this point clear, the Court simply pointed out the issues raised by the motion on the 1st reissue, and pointed out the new issue raised here, namely, as to the concavity.

Again, Judge WALLACE did make a distinct, separate and independent decision, regarding the same issues raised on the motion before Judge BLATCHFORD, in the words, to wit:

"Considered as a combination, it is hardly possible to believe "that the perforations, or the concavity, performed any new func- "tion in the Gardner seat."

This is, therefore, a decision on the same element, namely, the "perforations," and entirely distinct and aside from what Judge BLATCHFORD had previously decided. So that, taken at the best, if Judge WALLACE was not at liberty to follow Judge BLATCHFORD'S opinion as settling the questions therein decided, because it was an opinion on a motion, the Court was certainly at liberty to decide independently thereof, and did so in the last above quoted words.

B.

This Court cannot now on this case, and especially at this stage of the case, go back to inquire regarding rebutting evidence before Judge BLATCHFORD, because that was a motion in another suit, which suit died and was discontinued, and the present reissue was then taken out.

To do this would be to collaterally attack the opinion of Judge BLATCHFORD, which is never allowed. To do this would be to revive and open the dead suit and dead motion which Judge BLATCHFORD passed upon.

The presumption is the appellants did not have any rebutting evidence and could not find any, and they have not done any better in this case. The truth is, the appellants have not, in this case, rebutted the facts set up, as defenses to the perforations, in the Tice and Cochran patents, as we shall presently show.

C.

The case (8 Blatch., 113), cited by the appellants heretofore, is one of those old cases found by experience not to be the best law on the question. Besides, it does not sustain the appellants' proposition, for the Court says: "A decision not upon pleadings and

" proofs, but a decision or opinion on a motion for an injunction, " *can be hardly claimed to settle the question.*"

When the words "*hardly claimed*" are properly read and construed they will be found to mean **that in some cases such an opinion on a motion can be claimed to settle the question.** And the present case is such an one, where Judge BLATCHFORD'S opinion *does settle* the questions decided therein. Besides, the above case was disposed of on other grounds.

Again, Judge WOODRUFF, in the case cited, does not say an opinion on a motion is *never binding at final hearing*, and no Court could possibly say so. It would not be a truthful or legal proposition, and, where the questions of fact are unchanged, such an opinion ought in good conscience to be strictly followed; here such is the case.

Hence, an opinion on a motion can be followed at final hearing without violating any rule of law, practice or philosophy.

D.

Finally, the Court is always the last and ablest expert on patents, and as such Judge BLATCHFORD'S opinion is entitled to more weight than all the other testimony in the entire present case, and what is therein said about the perforations being for ventilation and ornamentation, &c., has never for a moment been contradicted, and cannot be.

Thus, if in no other sense, that opinion becomes expert testimony for the defense in this case, and was followed, at the final hearing of this cause, as being the best evidence.

E.

We submit it is not only usual and customary for Courts to follow prior decisions, but it is well settled, at least in the Second Circuit, that a decision on a motion is followed time and time again.

The following cases support our proposition and show that it was the legal, right, proper and courteous act of the Court on final hearing to respect the judgment and decision of his Honor, Judge BLATCHFORD.

In Voorhees vs. Bank of the United States, 10 Pet., 449, it was *held* that " wherever a tribunal had decided upon a matter within " its regular jurisdiction, its decision must be presumed proper, **and " is binding until reversed by a superior tribunal.** It

" cannot be affected, nor can the rights of persons dependent upon " it be impaired by any collateral proceeding."

The correctness of an original judgment or decree of a Court " having jurisdiction cannot be revised in a co-ordinate tribunal, " nor in a *collateral action.*" See Armory vs. Armory, 12 Am. L. Reg., 38.

And in 2 Abb. U. S. Prac., 151 (3d Ed.), in speaking of judgments of Courts of original jurisdiction, it is said: " The judgment itself, " so long as it remains in force, is evidence of the title adjudged " by it Errors committed by the Court, *however apparent, can be* " *examined only by an appellate power.*"

Equity Follows the Law.

In *Smith vs. Town of Ontario*, 4 Fed. Rep., 386, his Honor, Judge WALLACE, says: " The doctrine of estoppel becomes of very little " practical value if, whenever a former adjudication is relied on, the " former can be distinguished from the second by some variations " in the evidence " (p. 390).

And in establishing the rule the Court said:

" In short, whatever is merely matter of evidence becomes of no " importance after the determination of the matter in issue."

" So in an action against a principal upon a contract made by an " agent, where the defendant denies the agency and the judgment is " for the defendant, the fact that there was no agency **is forever " established for the purposes of future actions be- " tween the parties.**

" It may be that the fact of an agency was attempted to be " proved, on the trial of the former action, by showing that the " defendant had held out the person as his agent, but the conclusive- " ness of the adjudication could not be overthrown in a subsequent " action by proof of a written authority which was not given upon " the trial of the former action."

In Holiday vs. Pickhardt, 12 Fed. Rep., 147, decided March 11th, 1882, Judge BLATCHFORD, on a motion for preliminary injunction, recognized and followed (therein agreeing with complainants' learned counsel, *Mr. Dickerson*), the decision of the Patent Office in a case of interference.

See, also, Meyer *et al.* vs. Goodyear India Rubber Glove Manufacturing Co., 11 Feb. Rep., 891:

Where the rule was laid down that by a prior decision of a case

involving the validity of a patent, it was decided that the present reissue was not patentable by reason of an earlier patent, argument against the propriety of such a decision will not be entertained.

Rich vs. Close, 4 Fisher's Pat. C., 279, was a motion for a new trial, which was denied, the Court saying :

"I see no alternative but to hold the ruling on the trial correct."

In Perry vs. Littlefield, 2 Fed. Rep., 464, BLATCHFORD, C. J., says : "A large part of the defendants' papers on this motion are ad- "dressed to a point not involving anything pertinent to the motion, "namely: an allegation that this Court was mistaken in saying in "its decision on the demurrer in this case," &c. * * * * *

"I see no reason now to think that an error was made. No "ground is seen for doubting that the result arrived at in the de- "cision of this Court on the demurrer was correct."

In *White vs. S. Harris & Sons' Manufacturing Co.* (Circuit Court, D., Massachusetts, July 19, 1880), 3 Federal Reporter, 161, LOWELL, C. J., says: **The articles complained of are made under patent No. 221,721, which Judge Blatchford has lately said, in refusing a similar motion, do not, at first sight, appear to infringe the patent of the complainant.**. See White vs. Noyes, 2 Fed. Rep., 782, where preliminary injunction was refused.

In *Potter vs. Braunsdorf*, 7 Blatch., 97. Dec. 30, '69, BLATCHFORD, J., said : "This was a *final hearing* on pleadings, and proofs." The Court said: "*The question is disposed* of by the decision in the "case of *Potter vs. Holland* (4 Blatch., C. C. R., 206)."

That case (Potter vs. Holland) "was an *application* for a *provisional injunction.*"

And in *Atlantic Giant Powder Co. vs. Parker*, 16 Blatch., 281, the Court **recognized and followed the decision of a previous application for a provisional injunction,** saying: "It is the same powder which was **held by this Court "in May,** 1878, in the case of the same plaintiff against Neptune "Powder Company (16 Blatch., 251) to be an infringement."

And the decisions in both cases were again followed in 17 Blatch., 531, in case of *Atlantic Giant Powder Co. vs. Ditmar Powder Mfg. Co.*, another application on a motion for an injunction.

In *Peck, Stow & Wilcox vs. Lindsay, Sterritt & Co.*, 2 Fed. Rep., 688. ACHESON, D. J.: An interference was declared between Shepard & Webb, and decided in favor of Shepard. Webb acquiesced, and disclaimed the invention. The

Court says, counsel for assignees of Shepard, who are the complainants, "contend that the defendants, who are the vendees of L., F. "& C. (Webb's assignees) are privies to the interference and bound "by the adjudication, and cite in support of this position the de- "cision of Judge Nixon, in *Hanford vs. Westcott*, 16 O. G., 1181. I "assent so far as the question of *priority of invention is concerned.*"

In *Ratford vs. Folsom*, 3 Fed. Rep., 199: June 14, 1880. BROWN, D. J.: The Court says: "The general principals applicable to "this class of questions are well settled * * * * "When an *issue* is made in a case and decided, whether with *or* "*without trial*, the judgment *is conclusive* between the same parties "in any subsequent action for the same cause, *and as to all ques-* "*tions which were or* MIGHT HAVE BEEN *raised upon the first trial.*"

Stockton vs. Ford, 18 How., 418; Mallony vs. Horan, 49 N. Y., 111; Brooks vs. Moorhouse, 3 Ban, & Ard., 229.

In *Goodyear Dental Vulcanite Co. vs. Willis*, 1 Banning and Arden, 568, Judge EMMONS, in speaking of the effect of prior adjudication by co-ordinate tribunals, quoted with approval Washburn vs. Gould, 3 Story, 133.

"The rule of comity, always observed by the Justices of the "Supreme Court in cases which admitted of being carried before "the whole Court, was to conform to the opinions of each other, if "any had been given."

"Numerous citations might be added, all showing that, in the "opinion of the most enlightened jurists, we should be guilty of "grossly violating well established judicial usage and propriety, "should we disregard the adjudications already made in the refer- "ence to the validity of the patent before us." * * * *

"Upon reasons having much influence here, appellate Courts "often follow a series of adjudications made by subordinate tri- "bunals, when they have been acquiesced in and have become, in "some sense, a rule of property."

See also Putnam vs. Yerrington, 2 same, 237. "The question of "its (the patent's) validity and novelty has also frequently been be- "fore the Courts. * * * In some of them (the suits) * * * "**the contest was chiefly made on the motion for a** "**preliminary** injunction, but they all seem to have been under "the management and control of able counsel, *and the results have* "*been acquiesced in by the defendants without appeal.* * * * "Much deference is due to the judgment of every Court of co- "ordinate jurisdiction."

See also Rumford Chemical Works vs. Hecker, same, 351.

APPELLANTS' SECOND GROUND.

Facts Different.

That the facts in this case differ from those presented to Judge BLATCHFORD.

This would imply that the Court disregarded the appellants' testimony.

We submit this Court cannot enter into the merits of the case as presented to Judge BLATCHFORD. This would be to bring in new and extraneous evidence, and to collaterally retry the case tried before Judge BLATCHFORD, which would be such a plain violation of the well established law as not to require argument or the citation of cases.

APPELLANTS' THIRD GROUND.

Same Evidence.

That Gardner's 2d reissue acknowledges the prior existence of the Tice and Cochran patents, and both Tice and Cochran seats were worthless.

This proposition likewise assumes that the trial Court has not done its duty, and has not considered the evidence as presented at final hearing; but we have shown by the analysis of Judge WALLACE'S opinion that the Court has passed upon the evidence fairly and exhaustively.

APPELLANT'S FOURTH GROUND.

Worthless Devices.

That such worthless structures as the Tice and Cochran seats cannot " adversely effect " the Gardner seat.

In this instance the appellants have adhered to **their old error** in misconceiving the object of the Tice and Cochran patents as defenses, and as considered by the Court, both on the motion before Judge BLATCHFORD and on final hearing.

Appellants' View of Tice and Cochran Patents.

These two patents are set up by the appellees to anticipate the Gardner seat as an entirety, that is, as to material, perforations, concavity, adaptibility, etc. They are not used simply to show that one element, viz., perforation was old and well-known prior to Gardner. Hence, as an entire structure, the Gardner seat is not anticipated by the Tice and Cochran seats. If the Gardner seat is not anticipated by these patents, then, under our view of the use of them as defenses, they do not adversely affect the Gardner seat.

Appellees' View of Tice and Cochran Patents.

Each of these patents show one real element of the Gardner seat as being old, to wit, perforations (incidentally also that nailing to seat frames and adaptibility, etc., is old), but the perforations are the chief things shown by them. These perforations do afford ventilation and ornamentation, drying out of glue, etc., etc. In a word, a hole or perforation through the material is just the same in function and result, whether in the Tice, Cochran or Gardner seat. Hence there is no novelty in perforations in the Gardner seat.

The value and utility of the seat does not depend on the holes or perforations, but on the material used. If tin and rubber, gutta-percha, etc., tear the clothing or are unhealthy, use three-ply veneer. It is old—known since 1850.

Hence the Tice and Cochran patents do adversely affect the Gardner patent by destroying novelty of one of the essential elements.

It has been the failure to grasp the real merit of the Tice and Cochran patents, as above illustrated, that has made the erroneous impressions on the appellants' minds.

We never said they fully anticipated the Gardner seat as an entirety, and our expert, Mr. Hyde, was clear and exact in stating just what we here maintain (Record, page 343).

Against this sound theory as to the perforations in Tice and Cochran's seats not a word has ever been said, **but the appellants' entire attention was directed towards the material and showing that the material would sag, split, etc. This was no answer to the holes,** ornamenting and ventilating these seats just as in Gardner's seat; and from the nature of the case there was no answer to be given, hence their silence on that point.

See cases of Bliss vs. Brooklyn, 10 Blatch., 521; Crouch vs. Speer, 6 O. G., 187; Morgan vs. Seaward, 2 M. & W., 562; Boulton vs. Bull, 2 H. Bl.; 478, Manton vs. Manton, Davies Pat. Cases, 348.

These cases clearly hold, as is stated in Manton vs. Manton,

supra—**"the patent should show that the invention "* * * is not only new, but that it is useful to the "public."**

This case very strongly sustains the opinion of the Court at final hearing, to wit:

The Court said, independently of Judge BLATCHFORD's opinion, after citing the Mayo patent:

"It is difficult to see how there was any invention in Gardner's "seat. Gardner merely applied a process that was old, to a mate-"rial that was old, to obtain an old form."

Here it is plainly held Gardner's invention was not new, and this brings it within Manton vs. Manton. It requires the newness as well as the utility; neither alone will answer the requirements of the law.

APPELLANTS' FIFTH GROUND.

Reissue and Original not alike.

The appellants must claim that the Court erred in deciding the second reissue to be for a different invention from the original Gardner patent.

1st. Our answer to this proposition is that the Court did nothing more than to construe Gardner's patent, and it is the province of the Court to do so.

In Jennings vs. Kibbe, 10 Fed. Rep., 669, the plaintiffs put in evidence the patents and an exhibit of the infringing article, and the defendants took no testimony.

The Court personally compared the infringing article and the patents, and, finding it infringed, directed a decree in the usual form.

It was decided likewise, that the construction of the claims of a patent is a question of law exclusively for the Court. Ransom vs. Mayor, 1 Fish., 252; Dunbar vs. Myers, Dec. Com. of Pts., and U. S. Cts., 1877, 140.

In Putnam vs. Tinkham, 4 Fed. Rep., 411, the Court says: "A "comparison of the two patents shows, etc.," the reissue is void, because *it is on its face* for a different invention from that which "was embraced in the original patent," the Court evidently personally comparing the patents. In this case the Court simply decided as was done in Root vs. F. N. Welsch Manufacturing Co., 4 Fed.

Rep., 423, *that* the supposed invention was no part of the thing patented.

See also American Whip Co. vs. Hamden Whip Co. *et al.*, 4 Fed. Rep., 536., decided 1880, which supports our proposition that it is the province of the Court to construe the patent in all cases. See also The Clark Patent Steam and Fire Regulator Co. vs. C. W. Copeland, 2 Fisher, 221.

" The general words of the claim in respect to the scourer are, " therefore, to be construed as limited by any particular description " found in the *specification*." Knox vs. Murtha, 9 Blatch., 205.

The same rule applies to the *drawings*.

2d. Again: All that may be said about the title to Gardner's patent and the words used in said title are very unimportant, for the reason that the Patent Office voluntarily gives a title to the applications as presented, and the title is no part of the invention, but given simply to classify the patents.

In Bell vs Daniels, 1 Fish., 372, it is said a patentee is not controlled by the title of his patent, but the patent, the specification and the drawings are all to be examined, and are all to have a fair and liberal construction in determining the nature and extent of the invention.

3d. It is consistent for the decision to say that a chair seat is no less a seat because it has a frame, and Gardner assumed that every one knew as well as he did that every seat had a frame, as a part of it, without which it was not a seat. Hence, he included the frame in his invention.

4th. In citing from Gardner's original specification, the appellants omit to cite: " The veneers rest upon a shoulder, *f*, of a frame, F, " which surrounds them." And also to emphasize the words in the claim, " All substantially as set forth and for the purposes specified;" when these are considered they will be found to include in the claim the " frame F " above referred to.

That this is true we refer to the 3d and 4th claims of the 1st reissue 7203, where the combination was " *with the frame of a seat*," etc., showing Gardner wanted to hold the frame as part of his original invention.

We also cite the appellants' expert, Mr. Kittle, to show that this construction is fair, where, at page 244 of the Record, he introduces into the claim, by means of these words, the element of " adaptability " by unskilled labor.

APPELLANTS' SIXTH GROUND.

Gardner's Original had a Frame.

The sixth supposed ground of the appeal hinges on the ground preceding, in the attempt to show that Gardner did not have a frame as part of his original invention, and that it was an error for the Court to hold that he did.

A.

If the appellants are right, where did Gardner get his frame from, which he claimed in his first reissue, No. 7203, in the 3d and 4th claims? Either those two patents were for the same or different inventions. If for different inventions, then we insist the 2d reissue, No. 9094, is void, as the reissue of a void reissue; for the first reissue is plainly void if it is for a different invention from the original patent.

B.

The fact cannot be overlooked that in everything—patent, drawings and model—Gardner put on a frame to his seat, showing he invented it and meant to keep it.

It is strenuously denied that Gardner nailed his first seat on to the *top of the frame.* He did not dare to deny it. He did not dare to say he put it on as any unskilled laborer could have done.

Gardner was a skilled workman, as all his testimony shows (Record, pages 67–88).

At twenty years of age the foreman in a pattern factory (Record, page 67).

And as a journeyman "capable of taking charge or any kind of woodwork" (*Ibid.*).

We call especial attention to page 70 of the Record, where Gardner answered the question:

"22 Q. Under what action did you seek to save such material from splitting?

"A. From jumping on it and shrinking; any pressure whatever on it that would make it split.

"23 Q. **Did the influence of nailing a seat to a chair frame enter into the same idea?**

" **Yes, sir;** that is the reason I nailed the first one right to a chair, and I found it made the **old chair frame** stronger."

We submit from the above questions and answers only one conclusion can be drawn, and that is that Gardner meant his seat to have a frame, in order to prevent the seat from splitting, and under that " influence" he nailed it to a frame, quick as he could.

Recent discovery has brought out the fact; the frame can be dispensed with; not so, however, when Gardner invented this seat.

This is where the adaptability by unskilled labor has destroyed this patent.

APPELLANTS' SEVENTH GROUND.

Ignorance as New Matter.

The last reason for an appeal, the weakest of them all, is, that if Gardner was ignorant that his seat could be adapted and fitted by unskilled labor when he invented it, yet he could claim this in a reissue.

This being a question of law, we review some cases on this subject.

1.—Putnam vs. Yerrington, 2 Banning & Arden Pat. Cases, 243:

For a bottle stopper—requiring the stopper to be attached to the bottle, but the bottle was no part of the invention.

The Court held simply that the reissue could restate the invention, but it also said, page 243:

" By the introduction of new matter I understand " such an enlargement of the original specifications " or claims as to include combinations or results " which did not necessarily flow from the invention " as originally stated and described."

We contend Gardner did enlarge his reissue by introducing a **new element** of **invention**—not a result—and **this is appellants' testimony.**

This case *supra* decides:

(*a*) Courts of co-ordinate jurisdiction follow each other's decisions.

(*b*) Change of material is not patentable.

(*c*) **It is the invention of what is new** and not the arrival at comparative superiority " or greater excellence in that which

" was already known, which the law protects as exclusive property, " and which it secures by patent."

This case is applicable to sustain the decision of this case at final hearing, wherein it is held Gardner's seat is *not new, although it may be superior to other seats.*

Potter vs. Stewart, 18 Blatch., 561:

The patent was for an Improvement in Sewing Machines. Here the machine was patented as an entirety, and the Court said:

"It is of no consequence that the reissue states, " &c., * * * provided the said combinations in fact " existed in a machine made according to the draw- " ings and description in the original patent," &c.

We emphasize two things:

(*a*) The machine was *in fact* found shown and described in the original patent.

(*b*) Gardner's "adaptability" is confined to a seat frame having a rabbet, in the original. Depart from this and you leave his invention.

The case cited is really on our side when it is analyzed.

Now, in these cases, not a word is said to show that ignorance at the time of invention of a material element of invention could afterwards be supplied in a reissue.

On the other hand, we show such ignorance cannot be subsequently supplied.

Sarven vs. Hall, 9 Blatch., 524:

"Nothing can be legally claimed in the reissue which does not " appear either in the specification * * * or in the drawings or " in the model, *even though it was, in fact, the invention of the pat-* " *entee.*"

Judge SHIPMAN, in the case of *Atwater Mfg. Co. vs. Beecher Mfg. Co.*, 12 Fed. Rep., 608, where the reissue claimed "*the forming dies*" and the original patent was for *a series of dies, although it was apparent that the forming dies were the invention of the patentee*, says: " The section upon the subject of reissues prohibited the introduc- " tion of 'new matter' into the specification, *even though the new* " *matter was the invention of the patentee and was inadvertently* " *omitted from the original specification.*"

And the Court cites and approves the opinion of Mr. Justice BRADLEY, in *Powder Co. vs. Powder Works*, 98 U. S., 126, where he says that the Legislature " was not willing to give him (the inventor) " the right **to patch up his patent by the addition of**

"other inventions which, although they might be his, "had not been applied for by him."

The same learned Justice defines "new matter" as **"new, substantive matter."** This is the character of the adaptability in the reissue.

(See also Siebert Cyl. Oil Cup Co. vs. Harper Lubricator Co., 4 Fed. Rep., 328.)

Kerosene Lamp Heater Co. vs. Little, 3 Ban. & Ard., 312.

And *Gill vs. Wells*, 22 Wall., 1.

So in *Rich vs. Close*, 4 Fish. Pat. Cs., 279, it is held:

"An inventor must be taken to know of what his invention consists, and his patent *does not secure to him the exclusive right of any-* "*thing more than he claims to have invented.*"

Gardner did not show or claim "adaptability."

J. B. Sheriff & Son vs. A. Fulton's Son & Co., 12 Fed. Rep., 136:

This case shows that where a lapse of several years exists between the original and reissue, and a claim is granted in the reissue sweeping in its terms, even if allowable when the original was granted, yet the reissue is void.

This is decisive against the appellants' position.

Kells vs. McKenzie, 9 *Fed. R.*, 284:

Decided by Judge BROWN, Nov. 7th, 1881, holds:

A reissue is not valid for everything which might have been claimed in the original patent, nor does its validity depend wholly upon the fact that the new features attempted to be secured thereby were suggested in the model, drawings or specifications of the original patent.

And in *Thomas vs. Shoe Machinery Mfg. Co.*, 3 Ban. and Ard., 558, it was decided:

When material interpolations are made in a reissue, they show that the Commissioner exceeded his jurisdiction, and in such case it clearly becomes the duty of the Court to declare the reissued patent void.

Hayes vs. Seton, 12 Fed. Rep., 120:

Decided April 26th, 1882:

Shows what new matter is in a reissue, and that if Gardner had a right to this feature of adaptability he lost it by delay, within the decision of *Miller vs. Bridgeport Brass Co.*, 12 O. G., 667, that is, he dedicated it to the public and kept only the frame seat.

Johnson vs. Flushing and North Side R. R. Co., 12 Fed. Rep., 639:

U. S. Supreme Court decided May 8, 1882:

Mr. Justice Woods says: "Where it is shown that the invention "which appellants contend was covered by the original patent had "been in general use long before the date of its issue, the patent is "invalid."

So, again, the Supreme Court has in principle affirmed the decision of this case, for the reason that Gardner's original patent cannot be construed to cover the device claimed in the reissue. Besides, the laches in applying for the reissue is fatal to it.

Defense not Exhausted.

Let us look at the additional defenses to which the Court might have alluded, and it will be plain that the defense is by no means exhausted.

A.

Instead of Tice and Cochran Patents on Perforations, those to
Bramhill,
Farmer,
Pratt,
Belter,
can be substituted, and all are in evidence.

B.

On material can be used
Belter's two Patents.

C.

On concavity can be added to Bellows' Patent those to
Tice and
Bramhill.

Baillie Back.

The appellants seem to overlook the Baillie chair back.

This is a complete defense in itself, and if the Court has decided against the evidence in this case, why are the appellants so silent on this point, for certainly the testimony was unqualifiedly strong against this chair back, if we consider that testimony from the appellant's standpoint.

Silence concerning this back is an effectual admission of its power and worth as a complete defense to the Gardner patent.

Should that portion of the opinion of the Court remain, referring to this Baillie back, it would be sufficient to dismiss the bill.

Appeal Dismissed.

Any supposed error of the Court below as to the facts or the law, should be seriously considered before the decision at final hearing is disturbed, as the appellee, resting on the decision below, is justified in deeming himself secure against damages, his rights since the decision being based thereon, ought not to be disturbed in a clear case like this by a reversal.

The equities so greatly preponderating against the appeal, the decision of the Court below should be affirmed with costs.

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